25
INNOVATING TODAY
IMAGINING TOMORROW
敢・創・未來 HKUST

2015-2016 ANNUAL REPORT

WHO WE ARE

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.

HKUST'S 5 CORE VALUES

- Excellence, Integrity, and Academic Freedom
- Global Vision and Local Commitment
- Can-do Spirit
- Inclusiveness, Diversity, and Respect
- 1-HKUST

STATEMENT OF VISION

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

- To be a world-class university at the cutting edge internationally in all targeted fields of pursuit.
- 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 society.

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CHAIRMAN'S FOREWORD

In 2015-16, the University has taken significant steps to fortify capabilities as an institution to retain and enhance its world-leading position in the future, and I have been pleased to steer the Council toward a more actively engaged role in line with these forward-looking initiatives.

Among the Council's endeavors over the year, members have provided consultative input on the HKUST Five-Year Strategic Plan 2016-2020. The plan's major objectives focus on recruitment and retention of talents, education and research leadership, innovation and entrepreneurship, administrative excellence, and the championing of diversity, and should effectively position the University to drive forward as a world-class higher education institution.

Further moves saw a Knowledge Transfer Committee established under the Council in alignment with the University's mission to assist in Hong Kong's social and economic development and the increasing emphasis on knowledge transfer collaboration between faculty and industry as drivers of the future local and global economy.

To strengthen University governance, a Task Force to review the Council's effectiveness in fulfilling its duties, including committees, has been up and running since August 2015. Following the government's endorsement of the University Grants Committee's report on "Governance in UGC-funded Higher Education Institutions in Hong Kong" in March 2016, the Council decided to extend the Task Force's term for one year, until August 2017. This will provide more time to examine the action needed to respond to the report's recommendations, among other issues. Effective governance, as noted in the report, must provide a balance between institutional autonomy and academic freedom along with public accountability to inspire public trust and international reputation, and the HKUST Council undertakes its responsibilities in full knowledge of the key role it plays in assisting the University governance to advance.

Along with supporting the University's senior management, the Council helped to boost students' future prospects on a practical level, with the Institutional Advancement and Outreach Committee overseeing the introduction of the Headstart@HKUST Program. This is an enterprising workplace immersion and career development scheme for Year One and Year Two undergraduates, embracing internship, mentoring and student fellowship. Today's graduates enter a highly competitive workforce environment and being prepared and connected to society early through such a program can provide a distinctive edge as well as allow more employers to gain insight into HKUST.

Indeed, Council members are proud to contribute to and be a part of the HKUST family, and the splendid 25th Anniversary celebrations on-going locally and globally throughout the year have illuminated just how much this University has to be proud of just a quarter of a century after establishment. Despite the University's relative youth, past months have shown that the University has already achieved the academic standing and respect to draw eminent university presidents, internationally renowned academics, top government, business and community leaders to its commemorative events; fostered alumni who have rapidly distinguished themselves as researchers, entrepreneurs, and through service; and attained the global reach to hold activities around the world.

Numerous different rankings over the past year have also shown the high-flying position that HKUST now occupies, being placed No.2 in the QS World's Top 50 Universities Under 50 surveys in 2015, No.28 in the QS World's Top 800 Universities – and No.1 in Hong Kong – in 2015-16, and No.14 in Emerging/Trendence's Global Employability University Ranking, among others. Perhaps more, they serve to indicate just how much can be achieved in 25 years when all members of the University community are jointly focused on academic and research excellence.

I therefore welcome this opportunity to thank my fellow Council members, the President, senior management and the HKUST community, for the time they have devoted and energy they have shown on behalf of the University's advancement. The past 12 months have been very busy but highly productive and memorable ones that should set the University well on track for greater international eminence and contribution to society in the years ahead.

Chairman, University Council
THE HON ANDREW C S LIAO, *GBS, SC, JP*

PRESIDENT'S REPORT

In 2015-16, we celebrated HKUST's 25th Anniversary at home and globally through numerous different activities, aptly reflecting the myriad ways in which the University has set the pace in our short history. We have been equally mindful that there is still much to do to maintain our remarkable upward momentum, especially given the quickening pace, evolving economic and social role, and increasingly competitive international environment for higher education institutions.

LEADERSHIP VISION

Faculty promotions and external recruitment to the HKUST senior management team have recognized the talent already at work within our faculty as well as the value of drawing in outside insights and the importance of diverse input among those steering the University forward. Prof Nancy Ip, Dean of Science, The Morningside Professor of Life Science, and Director of the State Key Laboratory of Molecular Neuroscience, was appointed the next Vice-President for Research and Graduate Studies. Prof Ip, an internationally renowned neuroscientist, will start her term in office in November 2016. New deans for the School of Business and Management and the School of Engineering came on board during the year. Prof Kar Yan Tam, an early and innovative faculty member of the School of Business and Management, and Prof Tim Kwang Ting Cheng, previously at the University of California, Santa Barbara, took up their posts in April and May 2016 respectively. We also welcomed Prof Enboa Wu, who was appointed Associate Vice-President for Knowledge Transfer and Dean of HKUST Fok Ying Tung Graduate School.

LEARNING FOR LIFE

In teaching and learning, the year brought advances in the provision of an innovative education to spur students' individual potential and impetus for life-long learning. This has seen the strengthening of our University's distinctive tri-modal education approach, focused on active learning, in-depth academic engagement and cross-disciplinary courses, to provide a unique student experience. The number of courses planned or already containing experiential learning components expanded to more than 20, reaching hundreds of students. In addition, sustainability was further integrated into our educational framework.

On the pedagogical front, the Center for Enhanced Learning and Teaching was realigned and renamed the Center for Education Innovation, seeking to boost faculty members' awareness and confidence in adopting innovative teaching methods. HKUST's pioneering Massive Open Online Courses (MOOCs) increased to more than 20. HKUST's first MOOC "specialization" series, involving mobile device-related skills, attracted enrolment of over 200,000 worldwide while blended learning at home encouraged greater student interactivity.

As part of our learning-for-life experience, HKUST works hard to provide early exposure to potential career paths. Over the year, our signature Undergraduate Research Opportunities Program (UROP), celebrating its 10th Anniversary, enabled 400 students to gain hands-on insight into academic research projects supervised by 100 faculty members. Meanwhile, entrepreneurship education has strengthened. More than 100 events, workshops and forums were organized at The BASE, the University's dedicated entrepreneurial community space. Seeing the HKUST-initiated One Million Dollar Entrepreneurship Competition, first launched in 2011, expand from Hong Kong to four additional locations in China was an especially proud moment. Over 500 teams entered the contest.

While we view rankings as useful tools to learn from rather than as goals, HKUST's position at No.1 in Greater China and No.2 in the world in QS's Top 50 Under 50 2015 serves as an indication of the excellence of the University's holistic student experience. HKUST's No. 14 ranking in the Emerging/Trendence Global Employability University Ranking 2015, an international survey of employers, illustrates its beneficial and productive impact on our graduates.

RESEARCH IMPACT AND INNOVATION

It has been an active year for research development, with faculty cluster hiring underway for the five strategic areas identified following a University-wide consultation of senior academic management. These areas, comprising Data Science, Sustainability, Autonomous Systems and Robotics, Public Policy, and Design Thinking and Entrepreneurship, were boosted by the setting-up of The Robotics Institute, Big Data Institute and Institute for Public Policy, which will serve as cross-disciplinary research centers to enable large-scale projects to be undertaken. The new centers will also work together with existing HKUST research hubs, such as the Energy Institute and Institute for the Environment.

The quality of HKUST research was recognized when the Ministry of Science and Technology approved the

establishment of two out of five Hong Kong branches of Chinese National Engineering Research Centers at the University. The areas they will cover are Tissue Restoration and Reconstruction and Control and Treatment of Heavy Metal Pollution.

Overall, HKUST secured over HK$484 million in total research funding in 2015-16, with 207 new projects awarded by Hong Kong's Research Grants Council. Showing the University's commitment to sustainability, two proposals led by HKUST researchers were allocated HK$33 million each in the Theme-based Research Scheme's Developing a Sustainable Environment category. The University's Mainland platforms were reorganized to emphasize complementary aspects of innovation under the overall guidance of HKUST Fok Ying Tung Research Institute. The platforms were awarded more than RMB33 million for over 40 research projects from prestigious funding bodies, including the National Natural Science Foundation, Ministry of Science and Technology and Guangdong Provincial Department of Science and Technology.

Demonstrating the original minds at work at HKUST, a total of 100 inventions were disclosed, and 157 new patent applications filed. This brings HKUST's current intellectual property portfolio to 1,026 active patents and patent applications. The University submitted a record 87 applications to the Hong Kong government's Innovation and Technology Fund and received HK$112 million for the 28 projects funded.

GLOBAL FOOTPRINT, COMMUNITY TIES

A global outlook and role are integral to HKUST's strategic vision. I was therefore delighted to be invited for my fourth visit to the World Economic Forum Annual Meeting in Davos, Switzerland, and to participate in the elite Global University Leaders Forum to discuss the role of universities in the Fourth Industrial Revolution with presidents of top international research institutions. In addition, HKUST faculty took part in World Economic Forum Annual Meeting of the New Champions conferences in Dalian and Tianjin, including organizing a HKUST IdeasLab on advanced materials. Over the year, I traveled with faculty members to visit major institutions in the UK, Canada, the US and other parts of the world to build and strengthen relationships. During my October 2015 trip to North America, I was pleased to speak on science and technology, and university development issues in Hong Kong and Mainland China at the US National Science Foundation.

At home, HKUST fostered national, regional and international education links by bringing several high-profile science and technology-related competitions to the city. HKUST became the first local university to serve as a host for the National Challenge Cup, the main innovation and technology contest for university students in China. Inspiring school-aged students to explore the joys of science, the University hosted the Asian Physics Olympiad for the first time in Hong Kong as part of our 25th Anniversary celebrations and signed an agreement to host the International Mathematical Olympiad in July 2016.

Another prestigious gathering, jointly presented by HKUST and Times Higher Education, was the inaugural Asia Universities Summit, hosted on our campus and drawing some 30 leaders of rising and top universities in 14 Asian nations and cities, and other countries. Under discussion was the topical issue of how universities can nurture creativity and innovation. Sessions were thought-provoking and enlightening.

25TH ANNIVERSARY CELEBRATIONS

The Asia Universities Summit formed part of our wide-reaching 25th Anniversary program of activities, alongside our Distinguished Speaker Series, fund-raising campaigns, local and overseas gatherings, and other initiatives. Globally, School-sponsored alumni events were scheduled to be held in four major cities, namely London, San Francisco, Beijing, and Singapore, to outreach to our global counterparts and our alumni network. We organized these events with great enthusiasm and they were met by equal enthusiasm by the different members of the University family and the wider community in Hong Kong and beyond.

The response of donors to the University's anniversary Global Vision campaign was enormously heartening, demonstrating community trust and commitment to our current and future endeavors. The Campus Master Plan for infrastructure development was able to advance in numerous ways, including major support for an Innovation Building, a 1,000-seat multi-purpose auditorium and a graduate student hostel. In recognition of our renowned faculty, a further eight Named Professorships were inaugurated in 2015-16, thanks to the on-going generosity of stalwart University supporters. The total number of such professorships, both appointed and pending, now totals more than 30.

STRATEGIC WAY FORWARD

Our 25th Anniversary year has also entailed a great deal of discussion among senior management as well as HKUST stakeholders as to pathways forward and the formation of our five-year Strategic Plan 2016-20. This has called for HKUST to look closely at its mission and vision as an elite research-focused higher education institution that contributes to social and economic development of this city and beyond, our core values that guide the attributes we seek for our graduates, and our on-going drive to move into the highest global university spheres.

Five overall strategic objectives resulted and were endorsed by the University Council in June 2016: to see HKUST recognized as a University of choice for talents; a leader in education and research; a powerhouse for innovation and entrepreneurship; an exemplar of best-in-class standards, practices and operations; and a champion of diversity. It will be these goals that shape our planning and major initiatives in the coming years.

ONWARD AND UPWARD

During 2015-16, there has been much to do and much that has been achieved. For this, I want to thank the commitment, as well as the "Can Do" and 1-HKUST spirit, of our students, faculty, alumni, staff, Council and Court members as well as senior management. All have given their input in a variety of ways to ensure that HKUST continues to serve as a leading example of education and research excellence, significant innovation and thought leadership, and impactful graduates. With our solid foundation of 25 years of remarkable achievement, our new Strategic Plan in place, and our much-admired zest and willingness to strive for fresh peaks, I look forward to HKUST moving onward and upward in the contribution we make locally, nationally, and globally in the years ahead.

President
PROF TONY F CHAN, *JP*

SPECIAL TRIBUTE

It is with great sadness that I record the passing of Mr Ian Macpherson during the year under review. Mr Macpherson, CBE, OBE, OStJ, was one of the key founders of HKUST, forever intertwined with the miraculous history of this institution. He was appointed Secretary-General of the University Planning Committee in the mid-1980s. When the Planning Committee completed its work, Mr Macpherson served as Pro-Vice-Chancellor for Administration and Business from 1988-95, a vital span of years encompassing HKUST's pre- and post-1991 establishment as Hong Kong's first research-oriented university. He also contributed as a member of the University Council during that time. A true champion and friend of HKUST, Mr Macpherson will be remembered with profound gratitude and deep respect.

From left:

Mr Mark Hodgson,
Vice-Predsident for
Administration and
Business;

Dr Eden Y Woon,
Vice-President for
Institutional
Advancement;

Prof Tony F Chan,
President;

Prof Joseph Hun-wei Lee,
Vice-President for
Research and
Graduate Studies;

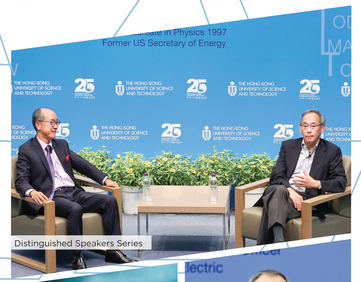
Prof Wei Shyy,
Executive Vice-President
and Provost

INNOVATING TODAY

IMAGINING TOMORROW

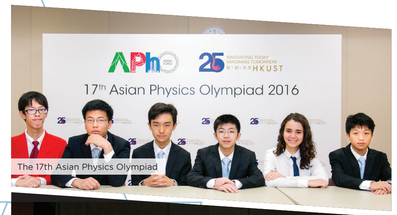
HKUST 25th Anniversary Celebratory Events

LEARNING AND KNOWLEDGE



Distinguished Speakers Series

GLOBAL PREMIER KNOWLEDGE HUB



The 17th Asian Physics Olympiad

The 57th International Mathematical Olympiad

INTERNATIONALIZATION


HKUST 25th Anniversary Celebration Banquet


One of the four Global Alumni Events (London)

Times Higher Education Asia Universities Summit

HKUST 25th Anniversary Celebration Banquet

SOCIAL ENGAGEMENT


"Innovating Today, Imagining Tomorrow" Mentorship Program


HKUST Connect – SERVE 25


Run for 1-HKUST


HKUST 25A Team @ the Standard Chartered Hong Kong Marathon

HKUST Orienteering Challenge

Run for 1-HKUST

INNOVATION AND ENTREPRENEURSHIP EDUCATION


The Intimacy of Creativity 2016 World Premiere Concert

Natural World, Culture Elegance, A Photography Exhibition by Tin Man Lee


Google Solve for X


HKUST 25th Anniversary Exhibition: Transforming Lives


Have Cloud: Painting by Danny Liu

EDUCATION DEVELOPMENT

Teaching and learning have broadened and become more flexible, with greater emphasis on diversity and innovation in study pathways, student population, and campus life

UNDERGRADUATE EDUCATION

2015-16 heralded the successful completion of the transition to the four-year degree program. During the year, the graduation ceremony for the final three-year degree program students took place and the first four-year cohort finished their last year of studies.

Four-year Program Mid-term Review

To gain early feedback on implementation and effectiveness of the four-year degrees, a University-wide mid-term review was conducted, with input from students, faculty members, teaching staff, and staff involved in student affairs and academic support units. While the final report is expected to be available at the end of 2016, preliminary observations suggest that the new undergraduate programs were launched relatively smoothly, generally well received with many positive comments from students, and implemented smoothly, with graduation taking place in a timely way. Success in achieving graduate outcomes and whether programs are flexible enough to benefit a diverse student population will need several more years to assess fully. However, the mid-term review will provide invaluable feedback for fine-tuning.

Experiential Courses and Entrepreneurship

As the degree program transition has taken place, tri-modal education has become a major focus, emphasizing cross-disciplinary courses, active learning and in-depth academic engagement. In tri-modal education, expanded offerings in experiential learning help to increase enthusiasm for teaching innovation. During the year, seven more experiential courses were proposed and funded by teaching development grants and some 15 courses with experiential components offered to around 500 students.

Several minor and major programs were also developed for Fall 2016 or 2017. The entrepreneurship minor, jointly offered by the School of Business and Management and School of Engineering, has been revamped into a University-level minor offered by all Schools. The program also has a strong connection with the Entrepreneurship Center and is part of the University-level Entrepreneurship Education Program (EEP). The EEP Committee is responsible for promoting and coordinating all entrepreneurship education activities and is housed under the Center for Education Innovation (formerly the Center for Enhanced Learning and Teaching).

Pedagogical Innovation through E-learning

Many departments have created or are creating at least one Massive Open Online Course (MOOC), reaching learners around the world via the leading global Coursera and edX platforms. Videos created for MOOCs also provide e-learning opportunities for blended learning – combining online and face-to-face teaching to achieve higher levels of learning – on campus. Many MOOC videos are already used in flipped-classroom delivery at the University, whereby students watch the video lectures first and use class time to discuss and analyze what they have learned, fostering more interactive in-class discussions. The University also launched its first "specialization", a series of MOOC courses around a particular topic, on the Coursera platform. The courses centered on full stack web development, in particular skills related to mobile devices, and attracted a total enrolment of over 200,000 learners. Other HKUST-developed MOOC courses were also highly popular. For example, "Introduction to Java Programming", offered on the edX platform, has been licensed to institutions in Russia and Saudi Arabia to be translated into their respective languages.

Sustainability Education

HKUST has set the goal of establishing an educational and research framework in sustainability education by 2020 to ensure that students gain a solid understanding of sustainability concepts, with the capacity and commitment to solving problems locally and globally. A broad strategy for sustainability education was developed. As the first step, a foundation course "*Introduction to Sustainability*" was developed to be launched in Fall 2016 in the undergraduate common core, to be offered jointly by the Schools.

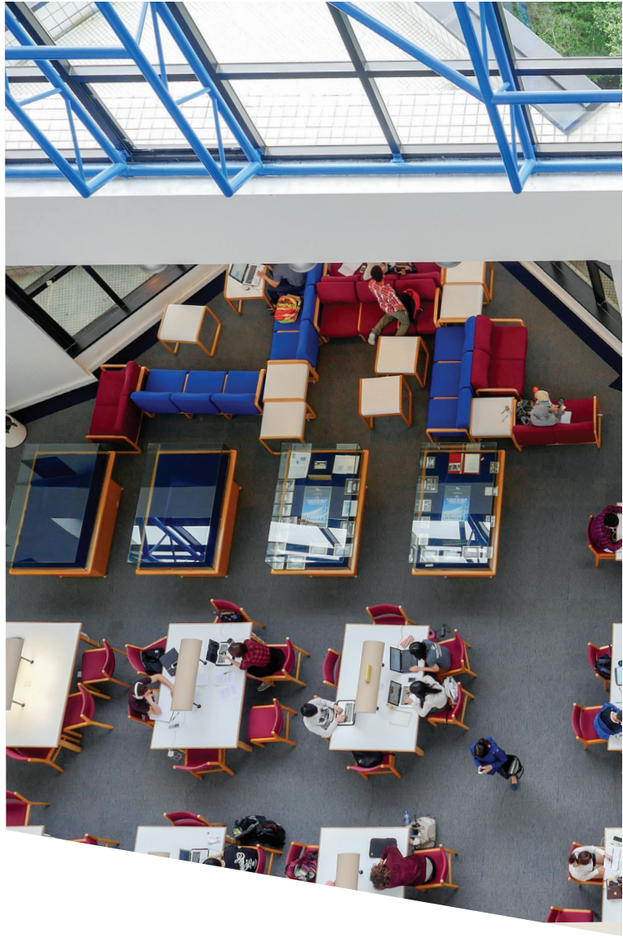
Early Research Experience

The University's signature Undergraduate Research Opportunities Program (UROP) celebrated its 10th year, with nearly 400 students engaging in early academic research under the supervision of over 100 faculty members over the year. Since the program's launch in 2005, some 30% of UROP students have gone on to pursue postgraduate studies, either in Hong Kong or in leading overseas higher education institutions.

Driving Forward Campus Diversity

The University continued to strengthen its global outlook with exchange-in and exchange-out students reaching around 1,000 each way in 2015-16, enabling students to learn about different ways of seeing the world and establish multicultural friendships. At the inaugural HKUST-Times Higher Education Asia Universities Summit in June 2016, four more agreements were signed with the University of Glasgow, Jagiellonian University, University of Warwick and University of Waterloo to enhance international exchange and study opportunities.

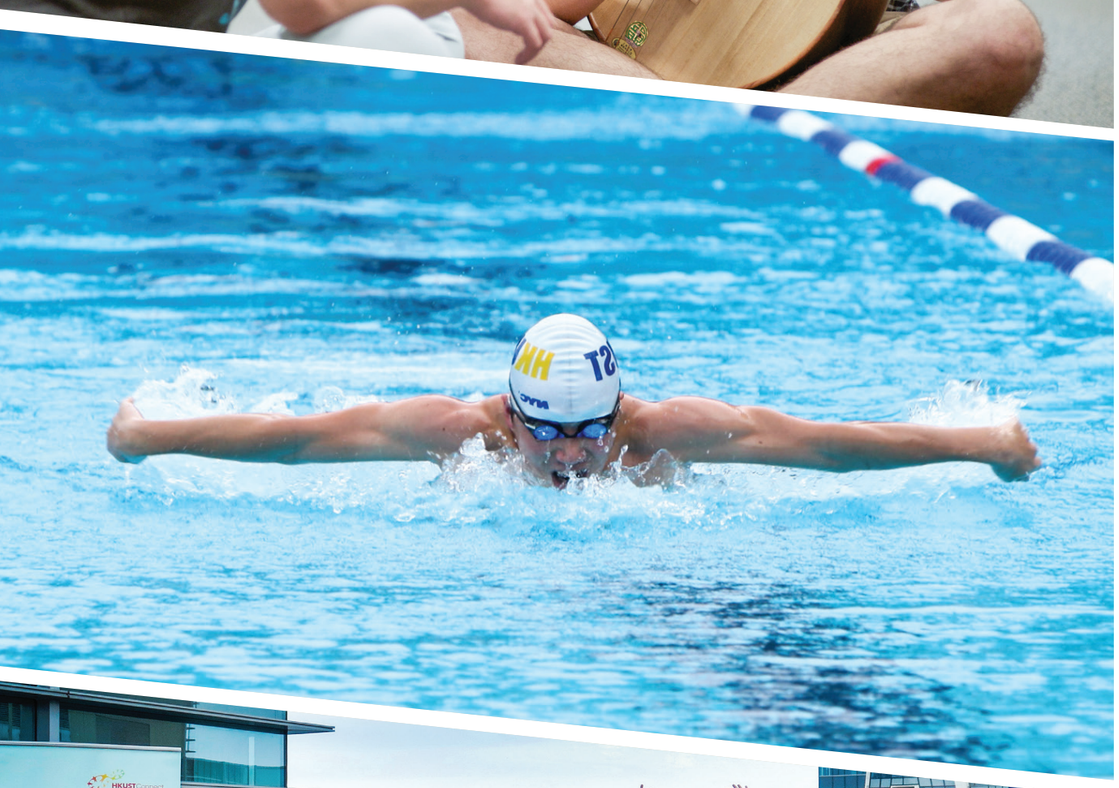
Diversity in the student population was further enhanced by a wide range of scholarships that saw a total of 1,750 undergraduates awarded 2,210 scholarships for academic and non-academic achievements. Some 20% of undergraduates were awarded at least one scholarship award. HKUST students also secured highly regarded and prestigious tertiary-wide competitive scholarships over the year, receiving five out of 25 awards in the Innovation and Technology Scholarship Award Scheme and two out of 10 awards for non-local new intake in the Targeted Scholarship Scheme under the Hong Kong government's Scholarship Fund. A local undergraduate and postgraduate were awarded a Sir Edward Youde Memorial Fund Scholarship and Fellowship respectively.



The University has been committed to fostering faculty diversity in terms of gender, nationalities and professional backgrounds, in order to nourish an intellectually stimulating climate for our University and offer students with role models. It is also important to promote our faculty profile to align with student demographic and international characteristics. A series of academic and personnel measures were implemented to step up faculty hiring and raise awareness in diversity.

Enhancing the 1-HKUST Spirit

An internal reorganization of Student Housing and the Residential Life Office created greater impetus for activities that bring residents of different halls together. Among centralized programs, freshmen dinners proved to be the stand-out occasions over the year, enabling new students to meet and talk with faculty members and senior management, including the President, Executive Vice-President and Provost, and Deans, in an informal setting. Other First Year Residential Life events included workshops on wine appreciation, social etiquette, and an exhibition on hall life and eco-awareness. Meanwhile, Residence



Masters arranged events in their individual halls and kept up traditions encouraging lasting connections with HKUST.

Student-initiated activities fostering campus-wide belonging were encouraged via a range of schemes, including the President's 1-HKUST Student Life Award (44 projects), Student Enrichment Activities Fund (40 projects), and Graduate Student Life Fund (18 projects). Initiatives over the year included Humans of HKUST, sharing the life views of students from different cultures, and UST Great Minds 2016, featuring talks by 10 student-nominated professors.

Strengthening Community Service, Leadership Skills and Internships

Building a sense of responsibility toward others is an integral part of a HKUST education experience. Through HKUST Connect, the University's flagship social engagement platform, the campus community collaborated with 65 partners to offer different types of service learning opportunities. Over the year, 2,558 students engaged in 125 such projects, including one local work camp and 12 service learning trips to Mainland China, Macau, Cambodia, Indonesia, Vietnam and the US. The signature HKUST Service Learning Day recruited 895 students, faculty members, staff and alumni to take part in 52 service projects with 27 community partners in April 2016.

In recognition of such spirit, the Wu Zhi Qiao (Bridge to China) Charitable Foundation awarded the Best Community Project and the Best Wu Zhi Qiao Project to 2014-15 HKUST Wu Zhi Qiao team members for their work in Yunnan. The team also received the Outstanding Performance Gold Award (Hong Kong Team) for their dedication throughout the year.

The University's REDbird Award Program continued to provide student leadership training opportunities. In 2015-16, 128 members and nine student leaders were recruited to work on initiatives with the University and local community. Three members received financial sponsorship from the REDbird Overseas Service Learning Program to join overseas service learning trips. Five REDbird gold, 13 silver and 55 bronze awards were granted to recognize students' dedication and achievements.

The "HeadStart@HKUST Program" (HeadStart), which aims at offering first and second year undergraduate students a "head-start" in the increasingly global and competitive society through an early workplace immersion and career development scheme, was launched in February 2016. Unlike common internship programs, HeadStart consists of three components – Internship, Mentorship, and Fellowship – that are designed to provide students with a holistic workplace training and career enrichment experience. A total of 56 students worked in internship positions provided by 24 local and international corporate partners.

Making a Splash in Sport

More active use of HKUST's beautiful shoreline is now underway, with the Water Sports Festival held in September 2015. The event promoted aquatic pursuits such as water polo, coastal rowing and dragon boating, and coincided with the groundbreaking ceremony for Phase I of the Water Sports Center. In international sporting success, Kimberley Vanessa Cheung (Biochemistry and Cell Biology) brought home a silver medal in the Asian Under 23 Fencing Championships in Mongolia, and a bronze medal in the Ladies Foil Team at the Asian Fencing Championships in Singapore. During a student exchange at Koc University in Turkey, Ka Man Leung (Environmental Science) captured gold in the night sprint and bronze in the super sprint at the Istanbul Orienteering Cup, a competition involving more than 350 participants from 12 countries.

POSTGRADUATE EDUCATION

On the postgraduate front, student numbers have been growing steadily, with a total of 4,628 as of 31 December 2015, comprising 1,833 research postgraduates and 2,795 taught postgraduates. To assist their studies and financial needs, 220 scholarship awards were offered to 209 postgraduates in 2015-16. Together with undergraduate awards, the total amount of scholarships awarded through the University reached $68.8 million, a 7% increase from the previous year.

In external awards, HKUST continued its success in the Hong Kong PhD Fellowship Scheme, established by the Hong Kong Research Grants Council to draw the best doctoral students from around the world to the city. The University has recruited the largest number of awardees for five years in a row and one out of six HKUST PhD students is from the Scheme. In the 2016-17 cohort, the University secured 51 out of a total of 231 awardees, representing 21%. Scheme fellows come from 28 countries and regions, contributing significantly to the cultural diversity of HKUST's research student community.

Raising Visibility and Recruitment

To widen the multicultural composition of the postgraduate population, the University proactively conducted outreach trips to connect with institutions in targeted countries, including Japan, Malaysia and Hungary, and strengthened its e-marketing via the Hotcourses platform. The Office of Postgraduate Studies hosted two webinars to reach out to potential students globally. For local students, the Office organized biannual MPhil and PhD information sessions for potential applicants to learn more about further studies opportunities as well as financial support and potential career paths following research studies. As a result of these combined efforts, local and international applicants for research postgraduate programs in 2016-17 grew more than 10% from the previous year.

Total Learning Experience
The Professional Development Courses were introduced in 2013-14 to make sure that MPhil and PhD students take away an all-round learning experience from their time at HKUST, including professional conduct, career development, communication skills, entrepreneurship and self-management. Over 2015-16, the courses underwent a review by an external expert that effectively helped shape its future direction. In addition, research postgraduates have been encouraged to broaden their horizons by undertaking academic studies overseas, with the support of travel grants.

To diversify perspectives, encourage cross-disciplinary interaction, and increase the social nature of a postgraduate degree program, the University organized regular cultural trips and enrichment activities during the year. Festival gatherings and outings have strengthened bonds and mutual support among the postgraduate community. The Office of Postgraduate Studies also arranged distinguished lectures by notable leaders in Hong Kong, including Dr Victor Fung, who drew a full house for his talk on "Innovation and Hong Kong's Future Competitiveness". Continuous efforts will be made on this front.

Intellectual Capital and Industry Collaboration
With postgraduate education playing a pivotal role in the creation of intellectual capital for industry and the economy, the University sought to propel more local talents to join the research community and to foster industry collaboration, through the launch of a Collaborative Research Studies Program. The program aims to encourage companies to tap into HKUST's research capabilities and sponsor employees to pursue further studies at the University. To nurture air transport professionals for the region, a MSc in International Air Transport Operations Management and a MSc in Aeronautical Engineering are set to launch in 2016-17 in collaboration with the École Nationale de l'Aviation Civile in France. Two new taught postgraduate programs were introduced in 2015-16, namely, the MSc in Analytical Chemistry and MA in Chinese Culture.

SPURRING INNOVATION

HKUST initiated, hosted and participated in a series of innovation and entrepreneurship events in 2015-16, reaching out locally, nationally and internationally to provide opportunities for students to develop their creative thinking and take forward their ideas.

Student Enterprise
Two Entrepreneurship Weeks were held on campus during the year. The first event in November 2015 included a five-day exhibition, entrepreneurship talks and seminars. The second was held in April 2016, encompassing sessions on financial technology (FinTech), blockchain and cryptocurrency, mobile banking, and pitching an idea. As part of the activities, the student-led hackUST 2016 (Hackathon@HKUST) was successfully held, with around 440 students and alumni in 91 teams from eight local universities taking part, almost double the number of participants and teams from the previous year. At AngelHack, the world's largest global hackathon event, HKUST student team Plain Exchange won the World Championship. The team was also named Best FinTech Startup by Barclays Bank.

In September 2015, HKUST trained and led the Hong Kong delegation at the Second Grand Challenges Global Summit Student Day, an international event jointly organized by the Chinese Academy of Engineering, US National Academy of Engineering, and the UK's Royal Academy of Engineering. Hong Kong team Proxision, mainly comprising HKUST students, gained the second runner-up place at the event.

The inception of the University's entrepreneurial community space, The BASE, has created a cool and continuous platform for exploring and inspiring an entrepreneurship culture on campus. Over 100 activities, including workshops, forums, and sharing sessions, have been held by various University units and student organizations since The Base was launched in September 2015. These have included the Entrepreneurship Center's Skill-set Workshop Series, BASE Entrepreneurship Stories, information sessions with appealing titles such as "Make Your Idea Rock" and "Start-up Salad", and a FinTech forum co-hosted with PayPal.

Techno-creativity Encounters
HKUST's 6th Annual One Million Dollar Entrepreneurship Competition extended its horizons to Beijing, Shenzhen, Guangzhou and Macau, in addition to Hong Kong, with the top three winners in each region set to compete in the grand final at HKUST Fok Ying Tung Research Institute in Nansha, Guangzhou, in August 2016. Over 500 teams entered the competition, which seeks to nurture start-ups and young entrepreneurs. The Hong Kong competition drew 100 teams, mainly HKUST faculty, staff, students and alumni from the Schools of Science, Engineering and Business and Management. Sundial Technology, a team comprising four HKUST students, went on to win the President's Prize, Innovation Prize and Student Prize for its self-cleaning, anti-reflection film to boost solar panel performance. The runners-up were NeoForest, with a novel air purifier to pump forest-grade air into an indoor environment, and Perfuso, who created a cost-effective and time-saving treatment to ease side effects for dialysis patients.

RESEARCH DEVELOPMENT

From basic research breakthroughs to industrial partnerships and entrepreneurship, HKUST initiatives looked ahead to address key local and global challenges

The explosive growth in the global knowledge base in the wake of recent technological advances and computing power has opened up fresh horizons for the research community, reshaping traditional academic boundaries and calling for innovative approaches to tackle the complex social and economic challenges now facing the world. To ensure that HKUST is well positioned to continue its role as a leading international research university in this new era, the University increased its emphasis on cross-disciplinary initiatives, groundbreaking research and development, partnerships with industry, and innovation and entrepreneurship in 2015-16.

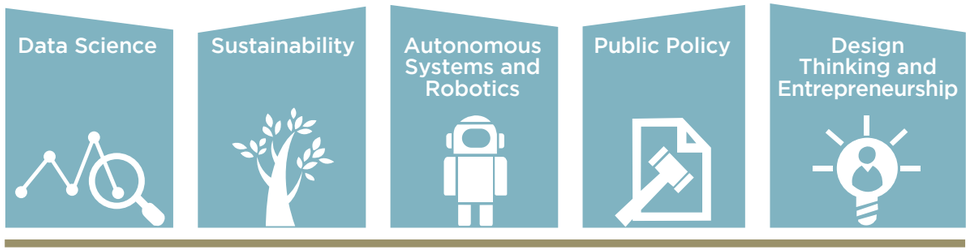
FIVE STRATEGIC RESEARCH AREAS

Through a major consultative exercise, involving senior research management and academics across all 20 of the University's departments and divisions, five strategic areas – Data Science, Sustainability, Autonomous Systems and Robotics, Public Policy, and Design Thinking and Entrepreneurship – were identified as globally significant areas where HKUST research could contribute substantially to future society. Faculty cluster hiring got underway to foster the five strategic areas. HKUST also set up three more research institutes, namely The Robotics Institute, Big Data Institute, and Institute for Public Policy. These cross-disciplinary centers will serve as platforms for researchers to work together on high-impact large-scale projects across fields, as well as complement existing platforms, such as the Energy Institute, Institute for the Environment, and HKUST Institute for Emerging Market Studies, and work carried out in individual Schools.

To further strengthen capabilities, a review of the University's central research facilities took place, leading to a multi-year strategy to systematically recapitalize and upgrade these vital hubs for multidisciplinary inspiration and studies. The Animal and Plant Care Facility received a major upgrade and expansion to meet the needs of successful and promising research programs in these areas and the Environmental Central Facility was remodeled to accommodate emerging research initiatives.

OPENING THE DOOR TO A NEW WORLD

To support the University's discovery and solution-building, HKUST researchers seek external research funding support. During 2015-16, more than $484 million was successfully secured from various funding bodies, including the Hong Kong Research Grants Council (RGC), government and government-related organizations, Hong Kong private funds, and non-Hong Kong sources.



FIVE STRATEGIC AREAS

Local Projects

The University was awarded 207 new projects by the RGC, with a total project value of $178 million. HKUST again achieved the highest success rate (51%) among all eligible institutions in the competitive General Research Fund in the year under review.

Two HKUST-led proposals submitted to the Theme-based Research Scheme were approved for funding of $33 million each. Both projects come under the Developing a Sustainable Environment category and will tackle pressing urban infrastructure problems. One project will create a smart diagnostic system for urban water supply networks by developing new techniques for detecting pipeline leakages and blockages; the other will explore landslide and debris flow mechanisms and find ways to mitigate their risks.

The University was awarded $18.72 million in total for three projects under the Collaborative Research Fund: two Group Research Grants and one Equipment Grant. The first two projects received over $6 million each to study the transcription accuracy of RNA polymerase II and to analyze the risk of landslides in Hong Kong respectively. The $5.67 million equipment grant will help purchase a state-of-the-art mask-making system for the Nanosystem Fabrication Facility, providing a significant research tool not only for HKUST but other UGC-funded institutions, local research institutions, and industry.

A record 87 applications were submitted to the Innovation and Technology Fund (ITF) in 2015-16 and secured substantial funding. The total for the 28 ITF-funded projects was $112 million, up from $96 million the previous year. The growing amount of ITF funding signifies the substantial commitment of the private sector to work with HKUST researchers on knowledge generation.

In another highlight of the year, Prof Gyu Boong Jo (Physics) received a prestigious Croucher innovation Award and $5 million for his research in synthetic quantum systems using ultracold atoms. The award recognizes exceptionally talented young scientists working at an internationally competitive level.

Mainland and International Projects and Collaborations

Seventy-eight HKUST research projects were funded by non-Hong Kong sources, worth over $58.01 million. Mainland Chinese sponsors accounted for the majority of this funding, with other contributions from Taiwan, Japan, Pakistan, the US, and others.

HKUST's Mainland China platforms attracted a combined total of RMB33.67 million for 43 research projects from the National Natural Science Foundation, Ministry of Science and Technology, Guangdong Provincial Department of Science and Technology, Nansha Science and Information Technology Bureau, and others. Two out of the five Hong Kong branches of Chinese National Engineering Research Centers were awarded to HKUST by the Ministry of Science and Technology, namely Tissue Restoration and Reconstruction and Control and Treatment of Heavy Metal Pollution. They were each allocated $17.5 million.

SETTING KNOWLEDGE TO WORK

Knowledge transfer is a key way in which HKUST contributes to innovation and entrepreneurship in the wider community by enabling the University's discoveries and solutions to be utilized by others. Leadership at HKUST in this area was enhanced by aligning the operations covered by the Technology Transfer Center, HKUST R and D Corporation and Entrepreneurship Center at Clear Water Bay campus and the technology and commercialization platforms in Nansha, Shenzhen and Foshan under the supervision of the Associate Vice-President for Knowledge Transfer. Prof Enboa Wu was appointed to the position during the year, with concurrent appointments in the School of Engineering and as Dean of Fok Ying Tung Graduate School. In addition, a Knowledge Transfer Committee at the University Council level was set up in March 2016 to oversee overall knowledge transfer strategy and governance.

The review of University policies and processes related to intellectual property (IP) management, commercialization and technology transfer continued during 2015-16. The review will help position HKUST to cope with the rapid changes occurring in innovation and entrepreneurship. Streamlining of invention disclosure and review processes also took place, with new review procedures set to launch in Fall 2016. A total of 100 inventions were disclosed and 157 new patent applications filed in 2015-16, including the University's satellite campus. With 162 newly granted patents, HKUST's current IP portfolio contains 1,026 active patents and patent applications.

The Proof-of-Concept Fund attracted 16 new applications in 2015-16. The fund provides gap support to enable pre-commercialization development of promising, cutting-edge technologies emerging from the University's research. The selection committee recommended eight of the projects for

total funding of $1.4 million. Technologies included medical devices, environmental technology, and a high-throughput screening system.

The HKUST-MIT Research Alliance Consortium also received 11 new proposals from local universities and MIT. The Consortium aims to build R&D collaboration between world-class universities and technology companies through industry-driven pre-competitive research. Clusters currently focus on data science and e-learning, internet-of-things for intelligent buildings and transportation. Three highly recommended proposals were submitted to the Innovation and Technology Commission.

As of 30 June 2016, HKUST R and D Corporation was managing a total of 64 active patent and software licensing agreements generating $2.7 million. By June 2016, 23 Massive Open Online Courses (MOOCs) developed by HKUST were available on major global platforms Coursera and edX through licensing arrangements and over 750,000 learners had registered for HKUST MOOCs. Through this and other copyright licensing, MOOC courseware contributed $2.2 million.

ENERGIZING ENTREPRENEURSHIP

The HKUST Entrepreneurship Program, which assists faculty, students and alumni in establishing technology-related start-ups, has 35 active companies, with the latest 10 at work in campus incubation premises and the other 25 graduating and relocating to external premises. In addition, start-ups are now being housed at HKUST Fok Ying Tung Research Institute in Nansha, Guangzhou, with two companies admitted to the Entrepreneurship Program and stationed there. The Shenzhen Research Institute has hosted 15 start-ups related to HKUST.

The Technology Start-up Support Scheme for Universities (TSSSU) was launched by the Innovation and Technology Commission in 2014-15. HKUST students' and alumni's growing enthusiasm for entrepreneurial ventures was indicated by the large number of TSSSU applications for 2015-16, with 50 applications received in January 2016. The vetting committee recommended 10 fundable start-ups, bringing the total number of HKUST-related start-ups to 21.

Business initiative is being encouraged from students' earliest days on campus, through endeavors such as the student-centric BASE facility and round-the-clock Engineering Experiential Learning Lab. A Build Your Own Business seminar series was organized throughout the year, and an Entrepreneurship Week held in the Fall and Spring semesters, featuring talks and start-up displays. The University's One-Million Dollar Entrepreneurship Competition 2016 in Hong Kong added to the vibrant atmosphere, with 100 teams, mostly from the HKUST community, taking part and the concept expanded to four regional contests in other cities in China and a Grand Final competition. An Innovation & Entrepreneurship Training Camp in July 2015, provided practical knowledge on moving business ideas into fundable business plans and drew participants from Hong Kong, China, Russia, Taiwan and Macau.

STRENGTHENING INDUSTRY PARTNERSHIPS

Alongside efforts to embed an entrepreneurial culture at HKUST and beyond, significant partnerships with major national and international companies were formed in 2015-16. Such ventures demonstrate the University's contribution to social and economic development and show the relevance and esteem attached to HKUST research.

In Mainland collaborations, the year brought the opening of the WeChat-HKUST Joint Laboratory on Artificial Intelligence Technology (WHAT LAB) to take forward intelligent robotic systems, natural language processing and speech recognition and understanding, among other areas, and an agreement with Mainland integrated IT services giant Digital China to foster smart city development. The Advanced Aircraft Noise Technology Center was established with the Aviation Industry Corporation of China (AVIC) to drive forward world-class research in the area of low-noise technology, operation and perceptions. Over the year, HKUST continued to work on multiple joint projects with civilian drone world leader DJI, a company with deep connections to the University. DJI is also collaborating with the University on license and IP protection for research and development related to multi-sensor image and inertia sensing for unmanned aerial vehicle (UAV) positioning. Meanwhile, the University's new Robotics Institute set up an Industrial Partnership Program to build cooperative projects, technology transfer and entrepreneurship with more companies.

Large-scale co-operative ventures supported by the Innovation and Technology Fund saw French company Thales, a global technology leader in aerospace, transport, defense and security, team up with HKUST to develop a big data platform to explore smart transportation applications while Gammon Construction Ltd and the Hong Kong Geotechnical Engineering Office worked with University researchers on another big data project centered on real-time landslide monitoring and an early warning system.

MSc students in the School of Engineering benefited from the on-going Ford-HKUST Conservation and Environmental Research Grants program, established with Ford Motor Company. Twenty recipients gained funding support for innovative green technology and transportation research projects in 2015-16. A similar partnership is underway with Mainland enterprise TCL Corporation in 5G wireless technology, internet services and big data.

In addition, HKUST faculty members and researchers offered research and consultancy services to the private sector in biotechnology, traditional Chinese medicine, advanced materials, information technology, wireless communication, civil and geotechnical engineering, aerospace engineering and environmental science. There were 148 contract research cases worth $69.1 million in 2015-16 and 24 consultancy projects totaling $6.9 million. Analytical and testing services using University facilities were made available to companies, with 475 jobs undertaken and total earnings of $3 million.

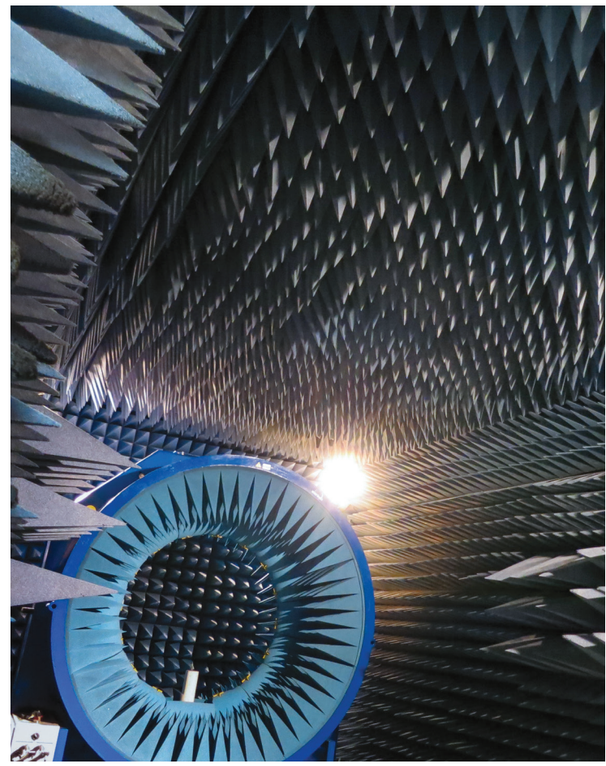
BOOSTING IDEA EXCHANGE

To widen the spirit of enterprise and initiative in all its forms within the wider community, the University propelled forward numerous events and initiatives, covering a spectrum of fields from hosting the Asian Physics Olympiad in Hong Kong for the first time to spurring artistic creativity through a Chinese creative writing program and the world-renowned "Intimacy of Creativity" composer workshops and concerts.

Executive education helped keep managers and executives up to date with the latest business thinking through a number of open and company programs that attracted more than 1,500 participants in total. In the Tanoto Center for Asian Family Business and Entrepreneurship Studies' inaugural open program, the focus was succession issues for ethnic Chinese family businesses. Sixteen founders and next-generation members of family businesses in Hong Kong, Mainland China, Malaysia, and South Korea attended the bilingual course.

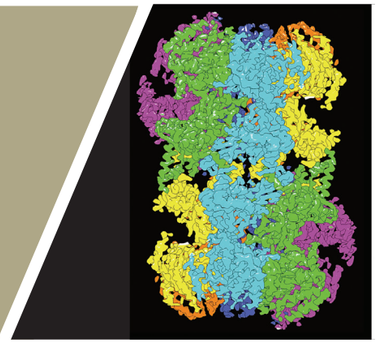
University academic forums and conferences included the ASPIRE Forum, featuring a symposium on "Smart Green Cities" and a one-week student workshop on innovation and entrepreneurship, and the NSFC-HKUST Joint Workshop on Engineering and Sustainable Development with the National Natural Science Foundation of China and Beijing-Hong Kong Academic Exchange Center.

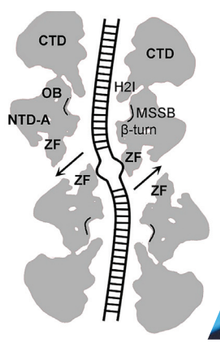
To generate further discussion and interaction with peers globally, the Office of the Vice-President for Research and Graduate Studies published *RESEARCH@HKUST*, the first in a series of publications showcasing the University's research excellence.

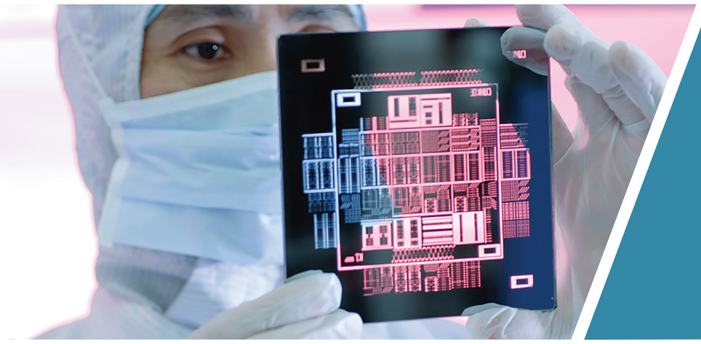


RESEARCH HIGHLIGHTS

Breakthroughs and discoveries that could reshape our world







Advance in Potential Alzheimer's Treatment

A research team led by Prof Nancy Ip (Life Science), The Morningside Professor of Life Science, has discovered that a protein found in the human body could be potentially developed as an effective treatment for Alzheimer's disease. The team has conducted a study on the potential therapeutic role of interleukin-33 (IL-33) in Alzheimer's disease, where they injected the protein into transgenic mouse models. The injection of IL-33 rescues contextual memory deficits and reduces the deposition of ß-amyloid peptide (Aß), suggesting that IL-33 can be developed as a new therapeutic intervention for Alzheimer's disease The findings were published in the *Proceedings of the National Academy of Sciences*. The research was the result of a collaborative effort among scientists from HKUST, University of Glasgow, and Zhejiang University.

Formative Links

Structural biologist Prof Mingjie Zhang (Life Science) and his team has found that microvilli and the stereocilia tip-link complexes are formed via strikingly similar interaction modes, despite only having harmonin, a PDZ domain-containing protein, in common. Their findings were published in *Developmental Cell*. The results of the study can help scientists and clinicians to identify mutations of genes that may cause digestive diseases.

DNA Dynamo

Using state-of-the-art cryo-electron microscopy technology, a team of scientists led by Prof Bik Tye (Life Science) and Prof Ning Gao at Tsinghua University solved the structure of the MCM2-7 complex at 3.8Å, a resolution that has never been achieved before for this large complex. The MCM2-7 complex plays a key role in destabilizing and unwinding duplex DNA during DNA replication. This work appeared in an article in Nature and was also highlighted in a commentary in the same issue.

Solar Cell Chart Success

A record-efficient organic solar cell developed by Prof Henry He Yan (Chemistry) was included in the renowned Best Research-Cell Efficiencies Chart, produced by the US National Renewable Energy Laboratory. It marked the first time that a solar cell developed by a Hong Kong institution appeared on this significant chart, which has compiled the values of the highest power conversion efficiencies for different types of solar cells since 1976. The entry posted "Hong Kong UST", an organic solar cell which yields efficiencies of up to 11.5%, as the latest world record for emerging organic solar cells. The research finding was published in *Nature Energy*. In a separate project, Prof. Yan's group demonstrated efficient organic solar cells can be achieved with nearly zero charge separation driving force and solved a fundamental problem that the organic solar cell community has been trying to tackle for nearly two decades. This fundamental breakthrough was also published in *Nature Energy*.

Opening Up the History of the Universe

Prof Yi Wang (Physics) and his collaborators from the Harvard-Smithsonian Center for Astrophysics proposed a method to probe the evolutionary history of the primordial universe, using the quantum phase of massive particles as clocks and identifying the consequences on the observable density fluctuations of the universe. This unique method could guide future experiments to distinguish primordial universe scenarios and address the fundamental question: "Where do we come from?" The research was published in the *Journal of Cosmology and Astroparticle Physics*, and reported by over 80 media and websites.

Gas Flow Computation

Mathematical formulation of gas dynamics is mainly categorized through the Boltzmann equation for micro-scale description of particle transport and collision and Navier-Stokes equations for macro-scale description of wave propagation. However, there has been a lack of reliable governing equations between these two scales. Prof Kun Xu (Mathematics) and his team have now developed a methodology for the study of gas flow in all flow regimes, using cell size and time step as modeling scales to construct numerical governing equations and developing a unified gas kinetic scheme (UGKS) for flow regimes. UGKS has been applied to the study of near space flight and is set to have a great impact on aerospace applications. The direct modeling methodology has also been successfully used in the development of numerical algorithms for radiative transport and plasma. The research has been published in the *Journal of Computational Physics, Communications in Computational Physics and Physics of Fluids*.

Lasers on Silicon

Prof Kei May Lau (Electronic and Computer Engineering) and her group, in collaboration with researchers from University of California, Santa Barbara, Sandia National Laboratories and Harvard University, were able to fabricate tiny lasers directly on silicon, providing a significant breakthrough for the semiconductor/photonics sector. Putting lasers on microprocessors can potentially boost their capabilities and allows them to run at much lower power, a large step toward photonics and electronics integration on a silicon platform. The breakthrough is ideally suited for high-speed data communications. The work was published in *Applied Physics Letters* and reported in a press release by the American Institute of Physics.

Facilitating Façade Design in Architecture

Modern buildings have complex shapes that are expensive to fabricate. Recent developments in computational geometry and computer-aided design can help to dramatically reduce the time and cost risks associated with construction of such buildings. Prof Ajay Joneja (Industrial Engineering and Logistics Management) is leading a research team to develop an integrated CAD/CAM platform for building information modeling (BIM) to support façade design for manufacturing and assembly (DFMA). The developed tools will be complementary to state-of-the-art commercial software systems currently in use in architecture engineering and construction. The project is supported by the Innovation and Technology Fund.

Walking on Air

Adjunct Prof Neville Lee (Industrial Engineering and Logistics Management) and three of the department's alumni invented "Super Air Cooled Shoes", using a patented Aersoothe air-cooling technology that can circulate 100 cans of air after walking for just 10-15 minutes. With the bending-actuated pumping system at the bottom of the shoes, the technology offers up to 50 times more air flow by pumping heat and water vapor out of shoes, at the same time preserving regular walking comfort and stability. The shoes can also alleviate many humidity or heat-related foot ailments, such as sweaty feet and athlete's foot.

Step Toward HCV and HIV Vaccines

Prof Matthew McKay (Electronics & Computer Engineering and Biomedical Engineering) led his team to breakthrough discoveries in predicting groups of sites with biochemical and immunological significance in multiple hepatitis C virus (HCV) and human immunodeficiency virus (HIV) proteins, which have potential applications in designing efficient vaccines for these two deadly viruses. The research on HCV has been published in the *Journal of Virology*.

Relieving Hong Kong Marine Hypoxia

Eutrophication/hypoxia in Hong Kong waters is essentially the ecosystem's response to the increasing nutrient discharge from the Pearl River and local sewage effluent. Prof Jianping Gan (Environment and Mathematics) was awarded a Theme-based Research Grant of HK$36 million from the University Grants Committee for research to identify factors driving the increase in eutrophication and hypoxia, and to provide analytical tools and a scientifically based strategy for stabilizing or even reversing them. The study also seeks to ensure the overall sustainability of the marine environment in Hong Kong.

Light Sheet Microscopy Technology Shines

Prof Shengwang Du (Physics and Biomedical Engineering), together with other researchers, invented a simple, efficient and low-cost method for producing ultrathin Bessel ("non-diffracting") light sheets to obtain long-term and high-resolution live cell imaging without damaging the samples. The method represents a huge advance for fluorescence microscopy as it results in extremely low phototoxicity (~1/1000) compared to a confocal microscope. Startup company Light Innovation Technology (LIT) Ltd was set up to commercialize the invention.

Bubble, Bubble

Asset bubbles often generate significant interest and heated public debate, but their causes and consequences have been little explored in rigorous academic studies. Recent joint work on the macroeconomic implications of bubbles and crashes by Prof Pengfei Wang (Economics) and coauthors has been helping to fill this gap. Through their studies, the researchers have estimated that bubbles explain more than 90% of stock market volatility and about 25%-45% of the variation in investment and output in the US, contributing timely knowledge to an area spotlighted by the recent financial crisis. Related papers have been published in *Journal of Monetary Economics, Quantitative Economics, Journal of Economics Theory, and Journal of Mathematical Economics*, among others.

Higher Taxes, Lower Innovation

Many policy-makers argue for higher corporate taxes to reduce inequality. Simultaneously, there is a strong demand for policies that make domestic firms more innovative. Are these objectives contradictory? Will higher corporate taxes reduce innovation? Prof Abhiroop Mukherjee (Finance), Prof Alminas Žaldokas (Finance) and Manpreet Singh (then PhD student, Finance) examined this issue in a paper, "Do Corporate Taxes Hinder Innovation", and found that higher corporate taxes did reduce R&D investment, patenting, as well as new product innovation by firms. The paper was recently discussed by former US presidential economic advisors at an academic discussion at the National Bureau of Economic Research's Summer Institute in Boston, and is set to be published in *Journal of Financial Economics*.

Deterring Cybercrime

Prof Kai Lung Hui (Information Systems, Business Statistics and Operations Management) has found that enforcing the Convention on Cybercrime can reduce random spoof-source DDOS attacks against targets within enforcing countries by at least 11.8%. The Convention is an international initiative spearheaded by the Council of Europe and implemented by more than 40 countries. The effect of such enforcement increases with the number of participating countries, but diverts attacks to non-participating countries. Prof Hui's research demonstrates the effectiveness of law enforcement and highlights the importance of international collaboration in deterring cybercrime, which causes significant loss to the world economy. A research paper is forthcoming in *MIS Quarterly*.

Tracking Impact of Advertising Images

Prof Rashmi Adaval (Marketing) and colleagues examined the effects of mental imagery. Using laboratory experiments, they showed that when people try to imagine an experience in the form of a story (for example, a visit to an advertised resort), mental images formed from different visual perspectives increased difficulty in processing and hurt evaluations. These same images had a more positive effect on evaluations when people imagined they were collecting information. Eye-tracking data, used to validate these conclusions, suggested consumers' imagery goals when looking at advertising images make a difference in the impact these images have. The paper has been published in *Journal of Consumer Research*.

Reaching Out through Writing

Prof Yan Lianke (Humanities), Sin Wai Kin Visiting Professor of Chinese Culture, completed *Twelve Lectures on World Literature in the 19th Century*. The book is based on his HKUST creative writing course lectures and will be published by Beijing Xinjingdian Chubanshe. His fictional work, *The Dying Sun* was published by Taibei: Maitian in 2016. He was shortlisted for the 2015 Newman Prize for Chinese Literature, 2016 Man Booker International Prize, and won Hong Kong Baptist University's 6th Dream of the Red Chamber Award in 2016.

Ethnic Group Socialization

Psychology researcher Prof Eva Chen (Social Science) examined the impact of ethnic group membership on how children in Hong Kong learn from and socialize with others. Such experiences in childhood are crucial in the later formation of identity and preferences. Findings indicated that Hong Kong Chinese pre-primary school children can differentiate between various ethnic groups, showing a robust inclination to learn from and socialize with members of their ethnic ingroup (Chinese) over outgroup (white, Southeast Asian) members. The strength of children's sensitivity and preferences was impacted by specific outgroup ethnicities, the presence of Southeast Asian domestic workers at home, and the type of school attended. The research received support from the Hong Kong Research Grants Council Early Career Scheme.

FACULTY DEVELOPMENT

A reorganization of the University's teaching innovation center, several senior appointments, and a host of national and international honors made 2015-16 an inspiring year

The past 12 months have brought a greater emphasis on faculty development related to tri-modal education and e-learning.

The Center for Enhanced Learning and Teaching (CELT) was re-organized into the Center for Education Innovation (CEI) in Fall 2015. Prof Roger Cheng took up the post of Director of the Center, concurrent with his role as Associate Provost (Teaching and Learning). CEI seeks to encourage and boost faculty members' confidence in undertaking teaching innovation, with a focus in 2015-16 on experiential learning. Two faculty retreats on this form of learning took place, involving lively exchanges and experience-sharing, and a community of enthusiastic teaching faculty and staff has now emerged.

The Center continued to provide e-learning workshops and a professional development seminar series featuring internal and external speakers. Topics covered over the year included blended learning, the science of successful learning, learning through videos, and student engagement and interactive teaching. In Fall 2015, a four-day professional development course was offered to all new faculty and as a refresher course for academics already on board. A faculty orientation program was delivered to newcomers to introduce key aspects of the teaching and learning context at HKUST. The Center is also responsible for graduate teaching assistant training, providing briefing sessions, workshops, and a large collection of resources.

The Center for Engineering Education Innovation (E^2I) co-organized Coursera's second annual Asia Regional Workshop at the University. The three-day event drew around 180 representatives from major Asian universities to discuss the development of Massive Open Online Courses (MOOCs), blended learning pedagogy, and emerging trends in higher education. The workshop showcased Asian university success stories and paved the way for collaboration in the region and beyond. Prof Rick Levin, CEO of Coursera and former President of Yale University, delivered a keynote speech at the event.

In April 2016, E^2I and CEI co-hosted a workshop presented by Prof Benson Yeh, National Taiwan University, one of the world's leading innovators in e-learning and the overall winner of the Wharton-QS Stars Awards in 2014. The event addressed the question: "How to Make an Impact in Education through MOOC and Flipped Teaching?" Over 40 faculty and staff from different Schools and 15 representatives from sister institutions attended.

NEW APPOINTMENTS

After a worldwide search, Prof Nancy Ip, Dean of Science and The Morningside Professor of Life Science and Director of the State Key Laboratory of Molecular Neuroscience at HKUST, was selected to be the next Vice-President for Research and Graduate Studies. Prof Ip is a world-renowned neuroscientist with research interests in brain development and function, and drug discovery for neurodegenerative diseases. She will take up the post in November 2016.

Prof Kar Yan Tam was appointed Dean of Business and Management, concurrent with his professorial appointment as Chair Professor of Information Systems, Business Statistics and Operations Management. With his extensive experience in the University's senior administrative team, the School of Business and Management will seek to scale new heights under his stewardship.

Prof Tim Kwang Ting Cheng was appointed Dean of Engineering, concurrent with his joint professorial appointment as Chair Professor in the Department of Electronic and Computer Engineering and Department of Computer Science and Engineering. A respected teacher-scholar and internationally renowned researcher with experience in fostering cross-disciplinary research collaboration, Prof Cheng will further advance the School's academic and research excellence in its next phase of development.

Prof Enboa Wu was appointed Associate Vice-President for Knowledge Transfer, Dean of HKUST Fok Ying Tung Graduate School and Professor of Engineering Practice in the Department of Electronic and Computer Engineering. Prof Wu will provide strategic leadership to further develop the University's knowledge transfer activities and be responsible for the overall management of University centers and companies related to knowledge transfer.

Other senior faculty appointments were:

PROF HONG KAM LO,
Head of Department of Civil and Environmental Engineering

PROF BERTRAM SHI,
Head of Department of Electronic and Computer Engineering

PROF VIDHAN K GOYAL,
Head of Department of Finance

PROF JACK A GOLDSTONE,
Director of HKUST Institute for Public Policy

PROF GUILLERMO GALLEGO,
Head of Department of Industrial Engineering and Logistics Management

PROF MICHELLE YIK,
Special Advisor to the Executive Vice-President and Provost and Director of Undergraduate Recruitment and Admissions

The following faculty members were granted the title of Professor Emeritus and Associate Professor Emeritus on their retirement or departure from University service:

PROF CHI MING CHAN,
Division of Environment, and Chemical and Biomolecular Engineering

PROF KIM CHONG CHONG,
Division of Humanities

PROF MOUNIR HAMDI,
Computer Science and Engineering

PROF MICHAEL MING TAK LOY,
Physics

PROF LIONEL MING SHUAN NI,
Computer Science and Engineering

PROF KUO CHIANG WEI,
Finance

PROF ANGELINA CHUN CHU YEE,
Division of Humanities

PROF MING FAI YUEN,
Mechanical and Aerospace Engineering, and Division of Biomedical Engineering

To facilitate settling in, the Faculty Host Arrangement provided new faculty members with collegial support and facilitated the building of ties and team membership.

ACADEMIC HIGH FLYERS

Faculty members were awarded numerous national honors over the year. Prof Bing Yi Jing (Mathematics) and Prof Christopher Leung (Civil and Environmental Engineering) received State Natural Science Awards (Second Class). The State Natural Science Award is the highest accolade in natural science in China. Prof Charles Ng (Civil and Environmental Engineering) received a State Scientific and Technological Progress Award (Second Class). In the Ministry of Education honors list, Prof Jing and School of Engineering colleague Prof Xiangtong Qi (Industrial Engineering and Logistics Management) each received Higher Education Outstanding Scientific Research Output Awards (Second Class) in the Natural Science category.

Prof Patrick Yue (Electronic and Computer Engineering) was presented with the Eleventh Guanghua Engineering Science and Technology Award, a biennial honor given by the Chinese Academy of Engineering in recognition of Chinese engineers and scientists who make outstanding contributions to the field. Prof Yilong Han (Physics) was announced as the recipient of the Chinese Young Scientist Award, which celebrates outstanding young achievers.

In Hong Kong, the sterling work of Prof Gyu Boong Jo (Physics) was acknowledged with a prestigious Croucher Innovation Award.

On the international front, President Prof Tony Chan and Prof Bing Zeng (Electronic and Computer Engineering) were elected Fellows of the Institute of Electrical and Electronics Engineers (IEEE), bringing the total number at HKUST to 39. Prof Nancy Ip, Dean of Science and The Morningside Professor of Life Science, was elected a Foreign Honorary Member of the American Academy of Arts and Sciences, and also named among Nature's Top 10 Science Stars of China. Prof Guohua Chen, Chemical and Biomolecular Engineering, was elected a Fellow of the American Institute of Chemical Engineers, Prof Jiatao Li (Management) became a Fellow of the Academy of International Business, and three academics Prof Benzhong Tang (Chemistry), Dr Jacky Lam (Chemistry) and Prof Tianshou Zhao (Mechanical and Aerospace Engineering), were named in Thomson Reuters' list of the World's Most Influential Scientific Minds 2015.

OUTSTANDING LEADERS

The third inauguration of named professorships at HKUST saw eight eminent faculty members and their donors honored. The appointed professors serve in diverse disciplines across the University and will lead by example in their research and teaching to advance HKUST as a world-class research university.

The University gained external recognition of the top teaching capabilities at work at HKUST when Prof Tim Woo (Electronic and Computer Engineering) was honored with the 2015 University Grants Committee Teaching Award. Prof Woo also received HKUST's Michael G Gale Medal for Distinguished Teaching, a University-wide recognition that is awarded annually to the academic member of staff who serves as an exemplary role model as an educator. The HKUST Common Core Course Excellence Award went to "Developing the Leader in You" taught by Prof Roger Levermore and Dr Cubie Lau (Management). The course motivates first-year undergraduates to see themselves as leaders, using a variety of teaching approaches including self-reflection and team projects, guest lectures and case studies from over 60 leaders in different fields.

COMMUNITY ENGAGEMENT

Major 25th Anniversary donations, University social endeavors and awareness-raising of science and technology, and closer alumni links drew HKUST and the community together

MEGA SUPPORT FOR GLOBAL VISION

In conjunction with the 25th Anniversary, the University launched its Global Vision campaign to invite community support for new infrastructure, professorships, scholarships, research, and academic programs.

Renowned businessman and philanthropist Dr Li Dak Sum has made generous donations to establish two perpetual endowment funds: the first is to provide scholarships for outstanding undergraduates with financial need from Ning Po College and Ning Po No.2 College, and the second is to support the University's high-impact research and innovation. The new Conference Lodge on campus was named after Dr Li and his family in appreciation of his benevolent support.

The Hong Kong Jockey Club Charities Trust supported the construction of a new hostel for research postgraduate students to be named Jockey Club Global Graduate Tower. The residential places, together with Tower-related life programs, will enrich students' campus experience. Mr Martin Ka Shing Lee made a donation for the construction of an Innovation Building that will take the University's innovation and entrepreneurship initiatives to the next level. The facility will be named the Martin Ka Shing Lee Innovation Building. A donation from The Shaw Foundation Hong Kong Ltd made possible the construction of a multi-purpose auditorium, which will accommodate a variety of events. The auditorium will be named after the late Sir Run Run Shaw. HK JEBN Limited, founded by an alumnus, made a donation to support development of the University waterfront, construction of the terrace and walkway between Cheng Yu Tung Building and the new multi-purpose auditorium, and a named professorship at the HKUST Jockey Club Institute for Advanced Study. This marked the first mega gift received from an alumnus.

The Third Inauguration Ceremony of Named Professorships was held in March 2016, following donations from eight long-standing contributors to higher education, including Mr Daniel C K Yu, Crown Worldwide Group, Elman Family Foundation, Fang Brothers Group, Sin Wai Kin Foundation Limited, Dr Helmut Sohmen and Mrs Anna Pao Sohmen, Tencent Charity Foundation Limited and Wei Lun Foundation Limited.

The appointed professors were: Prof Che Ting Chan, Daniel C K Yu Professor of Science; Prof Guillermo Gallego, Crown Worldwide Professor of Engineering; Prof Jack A Goldstone, Elman Family Professor of Public Policy; Prof Kei May Lau, Fang Professor of Engineering; Prof Jiatao Li, Lee Quo Wei Professor of Business; Prof George Smoot, IAS Helmut and Anna Pao Sohmen Professor-at-Large; Prof Lianke Yan, Sin Wai Kin Visiting Professor of Chinese Culture and Prof Qian Zhang, Tencent Professor of Engineering. Named professorships help the University to retain and recruit distinguished talents from around the world and to drive forward education and research. A professorship was also established by CLP Holdings Limited during the year. The holder will be known as the CLP Holdings Professor of Sustainability.

Further donations gratefully received to enhance educational and research development included: Mr Raymond Chu (establishment of the Big Data for Bio Intelligence Laboratory); The Chinese Manufacturers' Association of Hong Kong (support for undergraduate students in overseas activities); Lee Hysan Foundation (overseas scholarships for International Research Enrichment students); Bright Future Charitable Foundation (setting up of The Academy for Bright Future Young Engineers under the School of Engineering); iFlight Technology Company Limited (research projects in the Department of Electronic and Computer Engineering and the University's 25th Anniversary global event); Dr Gilbert Hung (topping up his exchange scholarship and bursary endowment fund); Lam Woo Foundation Limited (HeadStart Fellow@HKUST Program); and Mr Ringo Yu (research project exploring the mechanisms of debris flow).

As a special 25th Anniversary program, the University ran HKUST 25Projects to generate innovative ideas from faculty, staff and students on transforming HKUST education and student life, and to push forward research excellence. Contributions to support the 25 projects chosen were received from Mr Ho On Wah and other donors. Crowdfunding for the campaign was also launched to involve the wider community.

The University was also grateful to all sponsors of the 25th Anniversary Celebration Banquet, whose support was instrumental in making the occasion a success.

FACULTY MENTORING AND KNOWLEDGE SHARING

The "Innovating Today, Imagining Tomorrow" Mentorship Program was launched with the Hong Kong Federation of Youth Groups as part of the 25th Anniversary activities and to nurture future leaders. Over 25 faculty members from the Schools of Science, Engineering, Business and Management and Humanities and Social Science participated in the program, which saw 70 Form Four and Form Five students gain insights into cutting-edge developments in each of the Schools' areas of expertise, enjoy campus visits and undertake interdisciplinary activities. Each student was also assigned one faculty member as a personal mentor, who would share their experience and offer advice on personal and career development.

A new season of the popular Business Insights Presentation Series was held to disseminate School of Business and Management faculty research to the wider community. The Presentation Series, launched in 2009, has featured some 80 faculty and industry speakers and drawn more than 1,800 participants. Topics in 2015-16 included the online-offline battle for customers, the role of economic freedom in prosperity and rising wages, labor regulation and future employment in China. To further extend its reach,

the School's faculty members contributed to policy advocacy and participated in broader public service and consulting activities. In 2015-16, some 18% of full-time faculty undertook consultancy and advisory roles in over 40 companies and organizations.

The fifth Science-for-Lunch talk series was integrated into the 25th Anniversary program and focused on HKUST's key strategic areas for research, namely data science, autonomous systems and robotics, design thinking and entrepreneurship, sustainability, and public policy. President Prof Tony F Chan also provided a special presentation on the role of mathematics in daily life. The talks, held in Central, were attended by more than 350 business and community leaders.

A series of distinguished public lectures on topical issues was organized by the Leadership and Public Policy Executive Education Office. Subjects included ISIS and global terrorism, the innovation imperative, and how innovation happens. The Division of Humanities also continued to hold its popular public lectures at the Hong Kong Museum of History throughout the academic year, attracting hundreds of attendees. In addition, faculty members served as advisors to local museums.

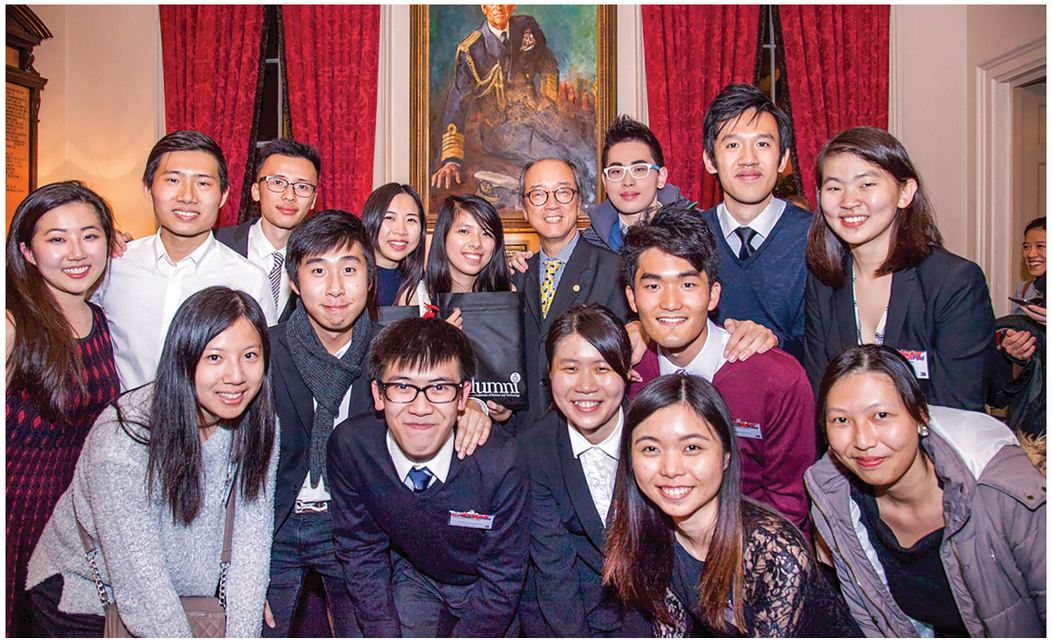
STUDENTS WHO MAKE A DIFFERENCE

Forty-two students from different disciplines undertook the Underwater Robot Community Engagement Project, an interdisciplinary and experiential learning course involving an underwater robot workshop and competition for local primary and secondary schools. The events were co-organized by the School of Engineering, the School of Business and Management, the School of Science and the School of Humanities and Social Science, with over 120 local school participants from different backgrounds, and some with Special Education Needs (SEN), taking part. The competition provided an excellent platform for school students to learn iSTEAM (Inclusion, Science, Technology, Engineering, Arts, and Mathematics) through robots. Among the 25 teams, at least one-fifth had participants with special education needs.

Engineering undergraduates on two mobile application courses and undertaking final-year projects worked with the YWCA, Chinese YMCA, Heep Hong Society, Hong Chi Association, LULIO, and Kerry Group Kuok Foundation on developing apps in a variety of areas, ranging from Tai O tourism to attention deficit hyperactivity disorder (ADHD) training.

The SCI/NUCLEUS social service team in the School of Science continued to serve the local community, with committed students selected as social leaders to organize the team and arrange voluntary service activities. In 2015-16, the School also initiated and co-organized a credit-bearing course on serving the elderly, with the School of Business and Management and School of Engineering. In this course, students made regular visits to the elderly home and helped seniors with their memoirs.

In the annual InnoCarnival organized by the Innovation and Technology Commission, HKUST ran workshops, seminars and robot exhibits, showcasing the innovative products and games created by faculty, students and alumni.



$25 MILLION The Alumni Endowment Fund set a fund-raising target by 2017

STRENGTHENING ALUMNI BONDS

To celebrate HKUST's 25th Anniversary, the Alumni Endowment Fund set a fund-raising target of $25 million by 2017. Adjunct Prof Roger King (Finance), also an alumnus, launched the campaign with a matching gift of $2.5 million, the largest donation received from an individual alumnus since the creation of the AEF in 2012. Generous gifts were also received from alumni brothers Terry and Terence Tsang, who contributed $2 million to set up a Student Emergency Fund, and HKUST Convocation Chairman and Alumni Association President Alvin Lam, who donated $500,000 to establish a Student Start-up Grant. Coupled with contributions from 500 alumni in 2015-16, the AEF now tops $24 million. Over $700,000 was also generated in interest income over the year, all of which went toward initiatives to help students optimize their university life.

The HKUST Convocation Committee continued to support the University's strategic developments and strengthen bonds between alumni, HKUST and the community. In addition, the HKUST Alumni Association (also referred to as A1) launched two flagship projects in line with its vision of "Alumni Inspire Alumni". These comprised the establishment of an Alumni Start-up Award to recognize and provide opportunities for entrepreneurial alumni to learn from experienced business sector leaders and a Social Leaders Program to encourage alumni mentors and high school students to work together on community service initiatives.

Branches and interest groups had an active year, with over 60 reunions and social events held in Hong Kong and around 15 cities across the globe. Among these activities, Class of 2005 members enjoyed connecting up with new and old friends at their 10th graduation anniversary reunion.

Alumni all around the world also showed staunch support for HKUST's 25th Anniversary. Over 600 alumni attended celebratory events in London, San Francisco and Hong Kong. More than 600 submitted portrait photos to the Mosaic Project, which has built a living tapestry of the campus community out of pictures of faculty, students, alumni and staff. And despite adverse weather, alumni joined the HKUST team at the 2016 Standard Chartered Hong Kong Marathon.

Many alumni saw their achievements and contributions to society recognized during the year. They included: Mr Rono Kwong (Hong Kong Top Outstanding Young Persons Award 2015), Mr Alvin Lam (Capital Leaders of Excellence Award 2016); Ir Dr Derrick Pang (Young Industrialist Award of Hong Kong 2015); and Mr Bird Tang (Hong Kong Youth Service Award 2015).

INTERNATIONAL AND MAINLAND STRATEGY

Growing external links strengthened global awareness of HKUST and opened further opportunities for students and faculty

MAINLAND INTERACTION

The University boosted academic cooperation and its role as an innovation pace-setter in Mainland China, along with research and other activities with the Mainland business sector.

Campus Connections

HKUST co-hosted the 14th National Challenge Cup together with Guangdong University of Technology. The event is China's foremost innovation and technology competition for university students. It was the first time in the Cup's 25-year history that a non-Mainland university had been invited to co-host the "Olympiad of University Students". In a new move for the contest, HKUST organized the inaugural National Challenge Theme-based Competition, focused on "Smart Green Cities". More than 800 teams took part, including students from Macau, Taiwan, Malaysia, Thailand, Mainland China and Hong Kong, with 40 teams short-listed for the finals in Hong Kong in July 2015. At the National Challenge Cup grand finals in Guangzhou in November, over 700 projects from more than 300 universities won a place in the final. HKUST students participated as contestants, performers and volunteers, with a School of Engineering team winning a Grand Prize. A 14th National Challenge Cup Youth Innovation and Entrepreneurship Summit was also held at HKUST in November, drawing around 200 participants from Hong Kong and Mainland China.

More than 500 faculty and students participated in cultural exchanges, community services and academic programs through a collaborative scheme administered by the Ministry of Education. The University hosted nearly 50 high-level delegations from Mainland China in 2015-16, including over 600 delegates from industry, government and academia. Among those visiting were Minister Wan Gang and Vice Minister Hou Jianguo from the Ministry of Science and Technology; Madam Qiu Hong, Deputy Director General of the Liaison Office of the Central People's Government in the HKSAR; Prof Qiu Yong, President of Tsinghua University; Prof Zhang Jie, President of Shanghai Jiaotong University; Prof Jin Donghan, President of Shanghai University; Prof Li Xiaohong, President of Wuhan University; Prof Tan Tieniu, Vice President of the Chinese Academy of Sciences.

Enterprise and Innovation

Over the year, the University's Mainland platforms in Guangzhou, Shenzhen and Foshan, served different but complementary roles on innovation under the guiding hand of the HKUST Fok Ying Tung Research Institute in Nansha. The HKUST Fok Ying Tung Research Institute assisted knowledge transfer. Shenzhen Research Institute fostered the University's technology advancement and collaborations with Mainland research institutions and enterprises. The HKUST LED-FPD Technology R&D Center at Foshan, originally focused on light-emitting diode research and development, moved on to III-V device packaging technology development.

Links with Industry

In addition, the University continued to extend its interaction with major Mainland enterprises through the development of research collaborations, job placements, student internships, and executive training opportunities. In 2015, research collaboration agreements were signed with the Aviation Industry Corporation of China (AVIC), Digital China and WeChat. HKUST is also working with Alibaba, BGI, Fosun, Huawei, Lenovo, Tencent, and Vanke, among others.

In October 2015, China Vanke Founder and Chairman Mr Wang Shi spoke on "Choosing Your Own Path" as part of the HKUST 25th Anniversary Distinguished Speakers Series. In June 2016, Mr Liu Chuanzhi, Chairman of the Board of Legend Holdings Corporation and Founder of Lenovo Group Limited, gave a talk entitled "Are Universities the Cradle for Entrepreneurs" at the HKUST-Times Higher Education Asia Universities Summit.

Dr Eden Y Woon, Vice-President for Institutional Advancement, enhanced links with leading Mainland business leaders at the invitation-only China Entrepreneurs Forum in August 2015.

A GLOBAL HKUST

Internationalization remains a key driver of HKUST's strategic development, with the University continuing to foster constructive relationships globally and identify innovative academic and research collaborations aligned with our areas of strategic focus.

Thought Leadership

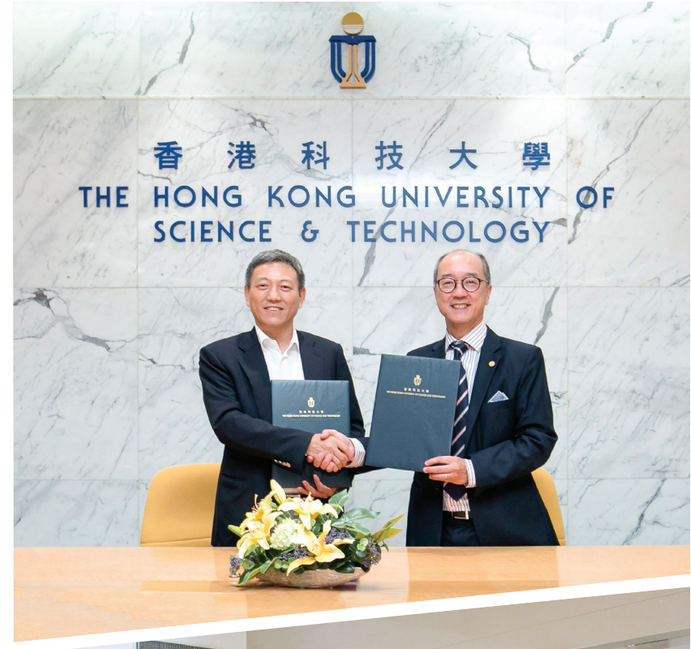
President Chan participated in the World Economic Forum Annual Meeting in Davos, Switzerland, for the fourth time. He was also invited to attend the Global University Leaders Forum, an elite platform involving over 25 leaders of the world's top research universities. The Forum examined the roles of universities and industry in response to the Fourth Industrial Revolution.

HKUST joined the World Economic Forum Annual Meeting of the New Champions or "Summer Davos" in Dalian and Tianjin in September 2015 and June 2016 respectively. In Dalian, the University held its fourth IdeasLab on "Revealing the Power of Advanced Materials". At the session, faculty shared their insights on innovative devices, sense lights, touch and biological traits. In Tianjin, HKUST co-curated the "Transformation Map", a dynamic system of contextual intelligence, illustrating the challenges faced by the Chinese government in designing the country's social insurance system.

Proactive Outreach

President Chan and faculty members traveled to the UK, Canada and US over the year to visit leading institutions and meet government officials and industry leaders. Media interviews and alumni gatherings during these trips increased HKUST's visibility and reinforced ties.

In October 2015, President Chan went on a tour to Georgetown University, Cornell University, University of Waterloo, Ryerson University and University of Toronto, to build wider international partnerships. During this visit, the President was invited to speak at the National Science Foundation on science and technology developments in Mainland China and Hong Kong. At a



HKUST's 25th Anniversary Global Alumni Events

seminar hosted by the Toronto Region Board of Trade, he spoke on "Innovation and Technology: Another Pillar of Hong Kong Economy". Over 120 representatives from government, academia and industry attended.

The delegation to the UK met presidents and senior management of six universities, and delivered insightful talks to students and faculty in November. Among the activities, President Chan and faculty members explored opportunities for opportunities with the Warwick Manufacturing Group at the University of Warwick and the Technology and Innovation Centre at the University of Strathclyde.

In March 2016, President Chan visited four institutions in Boston and New York City to explore potential collaborations in innovation and entrepreneurship, and exchange ideas on knowledge transfer. Massachusetts Institute of Technology (MIT), Harvard University, Colombia University and New York University's Center for Urban Science & Progress were keen to explore ways to further strengthen existing collaborations and identify new ways of working together with HKUST. President Chan also went to the MIT Media Lab, The Harvard Innovation Lab and Wyss Institute for Biologically Inspired Engineering at Harvard University, for an exchange of views.

Worldwide Connections

A series of events worldwide was organized to mark HKUST's quarter century since establishment. The University's 25th Anniversary Global Alumni Celebration in London was arranged to coincide with the delegation's Fall trip to the UK. Over 120 guests joined the event, including presidents of leading European institutions, China's ambassador to the UK, alumni, supporters, students from our World Bachelor in Business program and exchange students.

As part of the celebratory schedule in London, the School of Science presented their "Science-Vision into the Future" to a packed venue. In San Francisco in February 2016, over 160 guests attended a further anniversary gathering at which the School of Engineering presented on "The Role of HKUST in the East and West". In Hong Kong, more than 1,500 distinguished guests including top academic scholars and leaders from renowned institutions participated in the University's 25th Anniversary Celebration Banquet in June 2016.

Also in June, HKUST hosted the two-day inaugural Times Higher Education Inaugural Asia Universities Summit 2016 (THE Summit) where we were honored to have over 30 presidents and senior officials of leading institutions from 14 Asian nations and cities, and other countries, sharing with us their insights on "*How universities Nurture Creativity and Innovation*".

Purposeful Partnerships

In 2015-16, the University's ninth strategic partnership was agreed with KTH Royal Institute of Technology, Sweden. HKUST proactively forms strategic partnerships with elite universities and has already built such relationships with the University of Minnesota, Rice University, Technion – Israel Institute of Technology, University of Southern California, École Normale Supérieure, École Polytechnique Fédérale de Lausanne, Technische Universität München and Shanghai Jiao Tong University.

Under the Sponsorship Scheme for Targeted Strategic Partnerships, HKUST provided seed funding for 37 collaborative projects, which resulted in joint research publications and workshops as well as academic and research exchanges. Selected joint projects were subsequently awarded grants from bodies including the National Natural Science Foundation of China and Hong Kong's Research Grants Council.

In addition, HKUST regularly engages with peers in key regional and international networks. In December 2015, the University hosted the 21st Annual General Meeting and the 37th Board of Directors Meeting of the Association of East Asian Research Universities. Twenty presidents and vice-presidents from 17 member universities attended the meeting, which focused on the opportunities and challenges brought by the internationalization and globalization of higher education.

In 2016, the International Secretariat of the Association of Pacific Rim Universities (APRU) located to the HKUST campus. APRU is an alliance and advisory body composed of 45 leading research universities in the Pacific Rim region. HKUST will continue to contribute positively to these organizations as we value the importance of working closely together to shape higher education and research in the Asia-Pacific region.

ORGANIZATION AND RESOURCES

Senior staff appointments and office reorganization, recognition of long-serving University members, and numerous infrastructural advances took place over the year

ADMINISTRATIVE MOVES

The University announced the appointment of Dr Robert Wessling as the new Dean of Students, effective 1 August 2016. With his invaluable experiences and expertise in multiple student-related matters gained from university-setting, and as a teacher-scholar as well as a seasoned residence master, Dr Wessling will bring with him new insight and expertise into the University's entire spectrum of student activities.

Several other senior staff appointments were made during the year. Following the merger of two offices and the formal establishment of the Academic Registry, Mr James Prince was appointed the founding Academic Registrar, effective 8 August 2016. Mr Prince has a solid background in higher education administration. At HKUST, he will continue to develop academic administrative services to enhance the University's student experience and education provision.

In addition, Mr John G Maguire joined HKUST as Director of Facilities, Ms Katherine Wong became Director of Postgraduate Studies Administration, Ms Alice Wong was appointed Director of Finance, and Ms Daisy Chan took up the post of Director of Public Affairs.

The Student Housing and Residential Life Office was internally restructured into different teams in August 2015 to further optimize students' experience of hall life and provide a supportive and inspiring living and learning environment.

LOYALTY AND WORK-LIFE BALANCE

In recognition of two decades of service at HKUST, 89 colleagues were presented with Long Service Awards for their loyalty to the University. As at 30 June 2016, there were a total of 3,514 members of staff in post.

Short seminars and workshops on legal, ethical and management issues commonly encountered in public institutions or the education profession were offered regularly. In addition, the popular Wellness Program series of health seminars continued to be provided on a quarterly basis to enhance work-life balance among staff members and as part of the University's sustainability endeavors.

CAMPUS DEVELOPMENT

Good progress was made in the implementation of the Campus Master Plan. Construction tenders were issued for the indoor sports center, with completion expected in the fourth quarter of 2017. The boat house and promenade areas of the Water Sports Center reached the detailed design stage and are anticipated to be finished in mid-2018.

A generous donation from the Shaw Foundation enabled the 1,000-seat multi-purpose auditorium to move forward. Following an international design competition, Danish company Henning Larsen Architects was appointed to lead the design team. Construction is anticipated to start in mid-2017 with completion targeted for 2019-20. The auditorium and surrounding public space offer the setting and opportunity for formal and informal gatherings and events, and will occupy a well-sited location at the junction of key access routes to and from the Academic Building, Lee Shau Kee Campus, south gate and bus terminus.

The detailed design of the Hong Kong Jockey Club Global Graduate Tower is in progress, with bed space increased to 500 through an efficient planning strategy. The 520-bed hostel in Tseung Kwan O was completed and the occupation permit issued. The first students are due to move in by mid-August 2016.

Modernization of existing facilities was on-going throughout the year, including student residences, staff residences, and extensive areas of the Academic Building and its facilities. The additional accommodation provided by the opening of the Tseung Kwan O hostel will also provide an opportunity for renovation of two student residence tower on campus.

The official opening of the Cheng Yu Tung Building took place in February 2016. The eight-story research and academic complex covers a net floor area of 10,000 square meters and houses a range of teaching and research facilities including the State Key Laboratory on Advanced Displays and Optoelectronics Technologies, and the WHAT LAB, which explores artificial intelligence. The open plan design and flexibility are especially useful for encouraging interdisciplinary research.

(from top to bottom)
Artist's Impressions of
Multi-Purpose Auditorium and
Waterfront Project;
Cheng Yu Tung Building

SCHOOL OF SCIENCE

The School developed new programs spanning different fields, diversified its postgraduate student intake, and engaged in dialogue with leading global academics on key areas of research

DIVERSE LEARNING

Preparations for a BSc in Biotechnology and Business moved ahead. The program will be jointly offered with the School of Business and Management (SBM) and launched in 2016-17. Another collaboration with SBM is the revamped BSc in Mathematics and Economics program. A Minor Program in Biological Physics was launched in Spring 2016. In addition, a new "Quantum Field Theory" course, offered from the perspective of high-energy physics, was developed and delivered. The course benefits both postgraduate and undergraduates. Students from Chinese University of Hong Kong can also join the course through inter-institutional course sharing.

To leverage pedagogical developments and enhance student learning, the School developed several blended learning courses in 2015-16, including Thermodynamics and Statistical Physics, Nuclear and Particle Physics and Nature of Life Sciences. Massive Open Online Courses (MOOCs) were prepared for 2016-17, covering "Fibonacci Numbers and the Golden Ratio", "Quantum Mechanics" and "The Elements of Chemistry (I & II)". Several experiential learning courses were being planned, including "Teaching Science with Innovative Tools", jointly developed by the Departments of Physics, Chemistry and Mathematics.

Students in the first cohort of the International Research Enrichment Track, reached their third year and participated in overseas internships, expanding their research horizons. The internships took place at renowned institutions during the spring and summer, including the University of Chicago and Stanford University in the US and École Polytechnique Fédérale de Lausanne (EPFL) in Switzerland.

ENRICHING PERSONAL GROWTH

A Personal Development Plan was introduced into the School's Induction Course to encourage students to reflect on their values and consolidate short-term goals and career plans. The plan provides a value-added supplement to individual consultations, helping to enrich whole-person development throughout students' academic journey at HKUST.

The nine-week summer program, Research in Industrial Projects for Students – Hong Kong 2015, was successfully co-organized with the Institute of Pure and Applied Mathematics at the University of California, Los Angeles. During the program, senior undergraduates work in teams on real-world research projects proposed by an industry sponsor and under the guidance of an academic mentor. In 2015, projects were provided by China International Capital Corp, Hong Kong Observatory, Huawei and Lenovo, enabling participants to develop their analytical and computational skills, report writing and public speaking competence.

ATTRACTING BRIGHT MINDS

Efforts continued to recruit outstanding students. To boost interest and awareness among local students, the School organized the first HKUST Science Summer Camp in 2016. The two-day camp attracted 140 local high school students, who engaged in a series of activities, including laboratory tours, workshops and hands-on experiments, to learn more about science education at the University.

Outreach to non-local students was also stepped up. The International Mathematical Olympiad 2016 and 17th Asian Physics Olympiad brought hundreds of student contestants, field leaders, observers and visitors from around the world to HKUST, strengthening the linkage between the School and top overseas students and contributing to non-local recruitment. It was the first time the major regional physics event had taken place in Hong Kong.

POSTGRADUATE DEVELOPMENT

The School established a partnership with Shenzhen University and Shenzhen Institutes of Advanced Technology (SIAT) to develop dual-degree research postgraduate programs to nurture PhD students in marine science, neuroscience and computational science.

↑33% International Research Postgraduate

The MSc program in Analytical Chemistry was launched in 2015-16, with high-caliber students from Hong Kong and Mainland China enrolled in the first cohort. Two more programs will commence in 2016-17: the MSc in Mathematics for Educators; and the MSc in Big Data Technology, which is jointly offered by the Departments of Computer Science and Mathematics.

Over the past year, the School continued to recruit top postgraduate students through summer programs, research internships and outreach trips to overseas institutions. International research postgraduate numbers rose by 33% in 2016-17 compares to the last academic year, with students joining the School from a wide range of countries including the US, Pakistan, Philippines, Indonesia, India, Vietnam and Mongolia. Proactive recruitment during 2015-16 also increased the overall local research postgraduate intake for the new academic year.

RESEARCH ENGAGEMENT

The Ministry of Science and Technology approved the establishment of the first Hong Kong Branch of the Chinese National Engineering Research Center for Tissue Restoration & Reconstruction at HKUST. The Center, which is led by Prof Benzhong Tang, Department of Chemistry, focuses on new luminescent materials and their hi-tech applications in biomedical sensors and chemical probes.

The HKUST Jockey Club Institute for Advanced Study Focused Program on "Frontiers in Stem Cell Research", a three-day workshop on stem cell biology, was held at HKUST in January 2016. Stem cell research is one of the School's research strengths and a key area for future development. Eleven overseas speakers from Asia, North America and Europe and 12 local speakers from HKUST, University of Hong Kong and Chinese University of Hong Kong took part in the workshop. The workshop received overwhelmingly positive feedback, bringing together recognized leaders in the field to share their experiences and discuss the latest discoveries.

In December 2015, members of the School participated in a two-day HKUST-EPFL Joint Symposium on "Data Science and Neuroscience". The symposium served as a valuable platform for intensive discussions, which could potentially lead to research collaborations and joint development projects with EPFL, one of the University's strategic partners.

SCHOOL OF ENGINEERING

A new dean, strong rankings, cutting-edge programs and research endeavors, and community interaction were features of 2015-16

Prof Tim Kwang Ting Cheng was appointed Dean of Engineering, concurrent with joint appointments as Chair Professor in the Department of Electronic and Computer Engineering and Department of Computer Science and Engineering. Prof Cheng is an experienced academic leader and leading authority in Very Large Scale Integration (VLSI) testing and design verification.

In the Times Higher Education World University Rankings of Top 100 Universities for Engineering and Technology 2015-16, HKUST was ranked No.16, the best position yet by any local university since the table was established in 2010. It has been No.1 in Greater China for five consecutive years. In the QS World University Rankings by Faculty 2015 – Engineering and Technology, HKUST was ranked No.14, its highest position to date. In the overall rankings, the University was No.28 globally, up from No.40 in 2014.

ENTERPRISING EDUCATION

The BEng in Aerospace Engineering Program admitted a high-caliber first intake. The curriculum is designed to train students to design, analyze and test aeronautical and aerospace vehicles and associated technology, with graduates expected to work in major aircraft or aerospace service companies or manufacturers in the region. In addition, two innovative minor programs, in Big Data Technology and Sustainable Energy Engineering were developed over the year. They will be launched in Fall 2016.

The School piloted the Undergraduate Student-initiated Experiential Learning (USEL) Program. This encourages students to launch and manage their own projects, with guidance from faculty members. Participating students also have access to a well-equipped 24-hour Engineering Experiential Learning Lab. An open house and poster session took place in April 2016 for students to share their work with the HKUST community.

Massive Open Online Courses (MOOCs) are now being provided, enabling blended learning to be adopted. This new teaching method has been well-received by students. Examples of MOOCs introduced in 2015-16 include "An Introduction to Mobile Application Development Using Android" and the specialization series "Full Stack Web Development".

INNOVATIVE COLLABORATIONS

International collaborations flourished over the year. The School engaged in academic cooperation with CentraleSupélec in France allowing students to simultaneously earn a dual degree in engineering from both institutions. HKUST and the University of Waterloo in Canada introduced dual doctoral degrees in engineering for selected students. The School and Politecnico di Milano in Italy established an academic collaboration under which students can receive a dual degree in engineering at Master's level from both institutions.

Three MSc programs were designed in readiness for their start date in Fall 2016. The programs focus on big data technology, aeronautical engineering, and international air transport operations management, all areas of emerging community need. Eight MSc students spent six months working at Spanish National Research Council (CSIC) institutions around Spain as part of the School's inaugural research internship program with CSIC.

The School continued its success in the Hong Kong PhD Fellowship Scheme, receiving the largest number of awardees among all engineering schools in Hong Kong for the seventh consecutive year. To further attract top-caliber undergraduate and master's students to research postgraduate programs and increase diversity, the School organized a Summer Camp for Elite Students in 2015, mainly targeted at students from overseas countries and Mainland China.

No.1 GREATER CHINA Times Higher Education Rankings (Engineering and Technology)

RESEARCH ENGAGEMENT

In addition to his Theme-based Research Grant from the Hong Kong Research Grants Council, the principal investigator Prof Charles WW Ng, Associate Vice-President (Research and Graduate Studies) and Chair Professor of Civil and Environmental Engineering developed a significant research collaboration with a matching of RMB13 million from the Institute of Mountain Hazards and Environment (IMHE) under the Chinese Academy of Sciences. This collaboration will enable researchers from his team and the IMHE to develop a world-leading flume facility jointly for investigating debris flow-structure interaction in Kunming. Research outcomes from the Theme-based Research project and this collaboration will help engineers to mitigate risks and damage from landslides in Hong Kong and worldwide. Other donations include HK$1 million from Mr Ringo Yu and HK$1.9 million pledged by Geotech Engineering Ltd over five years.

The School saw several key laboratories and centers established over the year. The Hong Kong Branch of the Chinese National Engineering Research Center for Control and Treatment of Heavy Metal Pollution was set up at HKUST. The cross-School Laboratory on Big Data for Bio Intelligence and WeChat-HKUST Joint Lab on Artificial Intelligence Technology (WHAT LAB) were launched, and a framework agreement on smart city development signed between the University and Digital China, the largest integrated IT services provider in China.

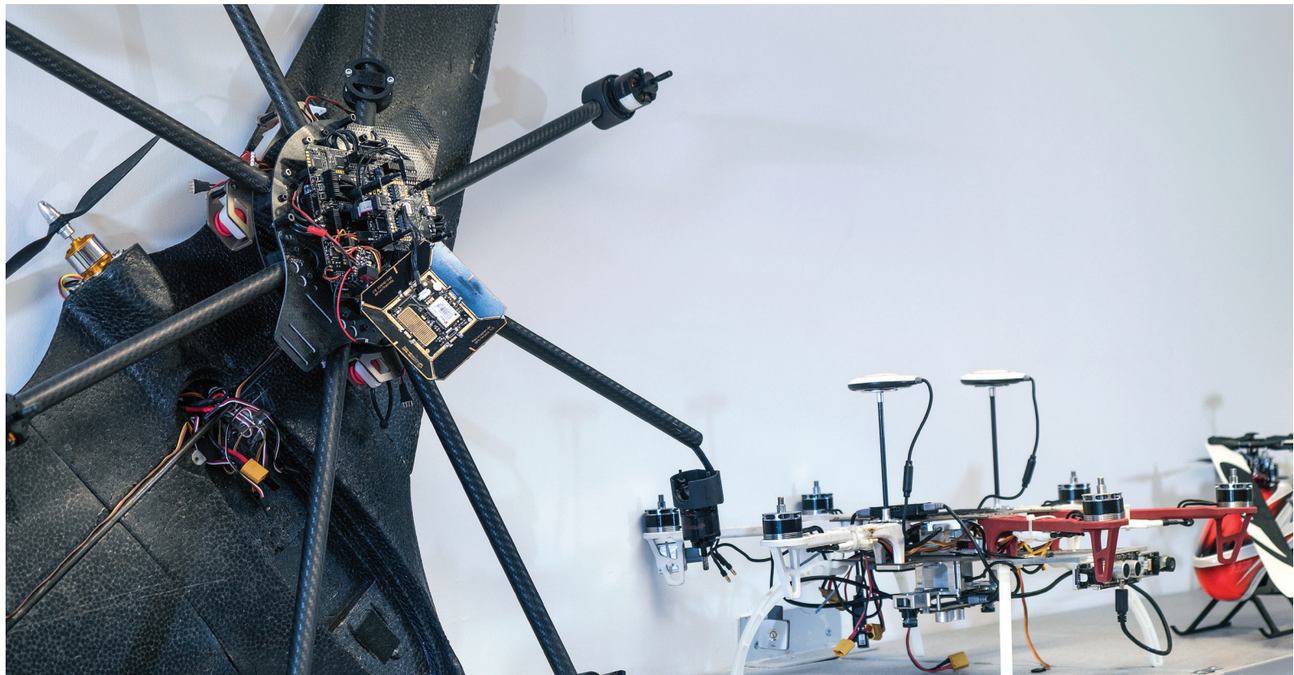
The Walt Disney Company (Hong Kong) and the University set up the Disney-HKUST Grant for Technology and Well-being. The US$75,000 grant enables engineering students to develop inventions to improve the lives of others. In addition, the Ford Motor Company continued its partnership with the University with 20 MSc engineering students receiving environmental sustainability research grants in 2015-16.

The first Technion-HKUST Workshop on Mechanical and Aerospace Engineering took place in June 2016 in Israel. Faculty and PhD students engaged in vigorous discussion on energy and transport with Technion counterparts. Technion is one of University's strategic partners.

COMMUNITY CONNECTIONS

The Academy for Bright Future Young Engineers was initiated by the Center for Engineering Education Innovation (E^2I), supported by Bright Future Charitable Foundation. The Academy offers authentic engineering experiences to high school students and empowers them to think like engineers. Forty students from Form Three to Form Five took part in the first program.

Projects developed under the Mobile Application Development Course saw groups of engineering students working with NGOs on initiatives ranging from elderly outpatient escort services to a depression detection gaming app. The School was highly visible at the annual InnoCarnival. The Science Toy Design Competition also showcased students' science and technology know-how in designing an educational toy.



SCHOOL OF BUSINESS AND MANAGEMENT

In 2015-16, the School built on its solid foundation and global standing, seeking to forge ahead with innovation and entrepreneurship

The School appointed Prof Kar Yan Tam as the new Dean. Prof Tam is a top international information systems scholar and a founding faculty member of the School. He joined HKUST in 1992.

INNOVATION AND ENTREPRENEURSHIP

The School built on strengths across the University, and its own tradition of innovation, to nurture next-generation business professionals with cross-disciplinary knowledge. This included preparation for the Bachelor of Science in Biotechnology and Business in 2016-17. The program represents one of the starting points for cross-school collaboration to meet industry and regional demand for such professionals.

The School enhanced the scope of its education to offer students more entrepreneurial training and access to resources and connections to transform their creative ideas into solid value propositions, capitalize on emerging opportunities, and promote technology commercialization.

GLOBAL AND LOCAL RECOGNITION

The School continued its sterling efforts in research, remaining No.1 in Asia in the University of Texas at Dallas' Top 100 Business School Research Rankings. The Kellogg-HKUST Executive MBA program maintained its world-leading position in the *Financial Times* EMBA global ranking, being placed at No.1 in 2016. This is the seventh time the program has topped the international chart. The program has achieved a place in the top three for 11 consecutive years. The HKUST full-time MBA program was ranked Asia's No.1 again in 2016, the sixth time in the past seven years that the program has secured the top spot in the region. It was ranked No.14 globally. The *Financial Times* ranked the HKUST MBA among the world's top 25 MBAs for Entrepreneurship, becoming the only Asia-based institution to feature on the list.

Financial Times Rankings

No.1 EMBA World (2016)

No.1 MBA Asia (2016)

Locally, undergraduate students boosted their reputation by winning multiple awards in competitions organized by various highly respected professional institutes. Three different teams clinched the top prizes in competitions organized by the Hong Kong Institute of Certified Public Accountants (HKICPA), Hong Kong Society of Financial Analysts (HKSFA), and Institute of Financial Planners of Hong Kong (IFPHK). These achievements reflect the quality of SBM students as well as the practical and rigorous training provided by the School's academic departments.

HKUST MBA students brought together 40 of their peers from top business schools around the world to compete in the School's first Global MBA Challenge. The overall championship of this case competition ended in a tie between home team HKUST and CIEBS.

BROADER AND CLOSER CONNECTIONS

The School played an increasingly active role in business-academia collaboration. The School Advisory Council, consisting of 38 local and international business leaders and academic leaders, provided valuable strategic advice and support. Council expansion has seen members from more than 10 countries and regions join the consultative body, a testament to the School's effort in building a closer link with the broader community.

During the year, the School partnered the Financial Services Development Council in jointly organizing two career forums. The gatherings brought together distinguished financial leaders to give students a closer look at career opportunities in the sector. In the HKUST's 25th Anniversary Distinguished Speakers Series, the School invited Dr Raghuram G Rajan, then Governor of the Reserve Bank of India, to give a talk. Those attending included major figures from the local business community.

The School continued to provide two company-sponsored taught postgraduate programs: an MBA program in Saudi Arabia and MSc program in Global Management for Shinhan Financial Group in Korea. These collaborations represent global recognition of our programs.

In addition to degree programs, the School offers an extensive list of business education programs to help executives meet new challenges. Company programs are tailored to meet the needs of organizations. In 2015-16, the School offered 34 company programs to 22 corporate clients, drawing over 1,200 participants. In addition to faculty members, industry practitioners were invited to share their expertise.

INTERNATIONALLY MINDED AND RESPONSIBLE

The School further expanded its international learning environment, with around 130 global partners at the undergraduate level and 80 at the postgraduate level. The network provides valuable overseas opportunities for students to gain insights into different perspectives and cultures. Similarly, high-caliber students from around the world are attracted to the School, which boasts a diverse student mix of over 40 nationalities, adding to the vitality of student life at HKUST.

The School has introduced courses on topics such as business ethics, social responsibility and responsible leadership to align with the need of various programs and different professions to address sustainability and corporate governance. Undergraduate students are also provided with options to take credit-bearing social service learning courses and internships to extend care to the community and experience what it takes to be a responsible leader in the world beyond the campus.

SCHOOL OF HUMANITIES AND SOCIAL SCIENCE

The School continues to embrace the exciting opportunities of internationalization and mobility for students and faculty, and the Hong Kong community

Research-embedded teaching combined with capacity-building instruction propelled the School beyond traditional pedagogical boundaries to bring the local into the global and vice versa during 2015-16.

CREATIVE CONNECTIVITY

The Global China Studies online curriculum reflects the School's commitment toward connectivity and creativity, blended classroom teaching, and active learning. Our interdisciplinary curriculum showcases the School's world-class research strength in creative arts, humanities, language education, and social science as well as the development of a new pedagogy utilizing online resources to develop students' communication skills, teamwork, and creativity. These classes are taught exclusively in English and designed for a multilingual student body whose first language is generally not English.

SHSS currently has eight online courses completed or scheduled for completion in Fall 2016 in the fields of science/technology/society, social-economic history, political science, language, quantitative methods, music, economics, and economic history. They are offered as Massive Open Online Classes (MOOCs) on such major international platforms as Coursera and edX, and used as the basis for active teaching and learning through flipped classrooms in the School's undergraduate and postgraduate Global China Studies curriculum and for blended classes at other universities via self-developed MOOC videos.

DRIVING FORWARD MOBILITY

In line with today's internationalized world, the School constructively fosters students' global citizenship and prepares them to be part of a new highly mobile global workforce. In 2015-16, approximately 70% of the School's undergraduates and 30% of postgraduates had spent at least one term on outbound exchange while at HKUST. Select undergraduates further engaged in international internships, including serving as political interns in the US Congress and entrepreneurship interns in Silicon Valley.

Our successful collaboration with the University of Virginia College of Arts and Sciences (UVa) continues, with Jefferson Global Seminars offered again at HKUST in Summer 2015. Over 90 students from HKUST and UVa and HKUST's global network enrolled in these intensive classes.

The School also expanded its undergraduate/postgraduate 3+1 Global China Studies Consortium to 11 member universities, comprising Central China University of Science and Technology, Nanjing University, Shandong University, Shanghai Jiaotong University, Shantou University, Sichuan University, Sun Yat-Sen University, National Taiwan University, Waseda University, Xi'an Jiaotong University, and Zhejiang University. Outstanding students from these universities can accelerate their studies and receive a bachelor degree from their undergraduate university as well as a MSc in Global China Studies from HKUST in four to four and a half years.

70% undergraduates spent at least one term on outbound exchange

GLOBAL FACULTY

In 2015-16, the School welcomed anthropologist Prof Lucia Liu (previously Boston University) to the Division of Humanities. Sociologist Prof Jack Goldstone (formerly George Mason University) and public policy expert Prof Xun Wu (from National University of Singapore) joined the Division of Social Science and the newly established Institute for Public Policy.

Prof Albert Park, a specialist in development, education, and labor economics, spent the 2016 Winter quarter as an Exchange Professor at the California Institute of Technology's Division of Humanities and Social Science. Prof Wenkai He, Division of Social Science, and Prof Jianxiong Ma and Prof Shenqing Wu, both Division of Humanities, received Harvard-Yenching Institute (HYI) Visiting Scholar Awards to spend up to one year at Harvard University in 2016-17. Prof He was also awarded a HYI- Radcliffe Institute Joint Fellowship.

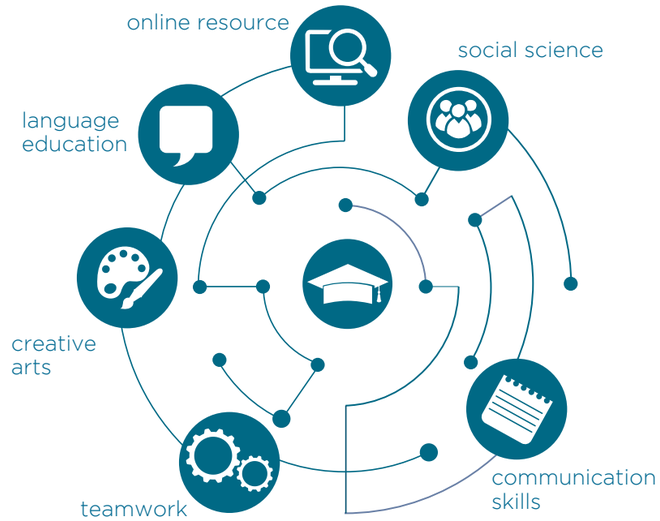
Faculty members from both divisions have assisted in knowledge transfer through media appearances. In the past year, SHSS academics have been cited, quoted, or interviewed by various local, regional, and international media, including Agence France-Presse, BBC China, Bloomberg Business, *The Economist*, *New York Times*, *Wall Street Journal*, Phoenix TV, *South China Morning Post*, Radio Television Hong Kong and Voice of America, among others.

COMMUNITY INPUT

Together with the HKUST Jockey Club Institute for Advanced Study, the Division of Humanities invited acclaimed Chinese writers Shu Ting, Su Tong, and Li Er to be writers-in-residence, meet students, and deliver popular public lectures. Sin Wai Kin Visiting Professor of Chinese Culture Lianke Yan organized these and other writers to teach a well-received class on creative writing and world literature.

The Intimacy of Creativity returned for a sixth season. The internationally renowned workshop series originated at HKUST and is led by Founder and Artistic Director Prof Bright Sheng, YK Pao Distinguished Visiting Professor of Cultural Studies and IAS Visiting Fellow. It centers on an innovative dialogue between emerging composers and established musicians on the development of new scores. The 2016 season formed part of the University's 25th Anniversary celebrations and included a five-year Intimacy of Creativity retrospective concert. The Hong Kong Philharmonic Orchestra participated as the ensemble-in-residence and presented a world premiere concert at the Hong Kong Cultural Centre, featuring compositions revised during the Intimacy of Creativity sessions.

Our interdisciplinary curriculum showcases the School's world-class research strength in the following:



INTERDISCIPLINARY PROGRAMS OFFICE

Innovation lies at the heart of IPO and 2015-16 was a fruitful year

IPO makes every effort to help students discover their potential and what they truly seek to pursue in the future.

EDUCATION INITIATIVES

An Individualized Interdisciplinary Major was planned over the year under review. The degree is currently the only one of its kind in Greater China, allowing students to create a unique program focused on a specialized area of study that best suit their own intellectual interests and passion. Students can take advantage of courses from different departments, divisions and schools at HKUST or from outside universities and exchange institutions in creating their program. The objective is to inspire long-term commitment to an interdisciplinary research field or an emerging career path not yet fully established in the market. Four students with new majors in Bionics, Computational Cognitive Science, Environmental Geoscience and Bioenergy Management will start their respective studies in 2016-17.

The inaugural Solve for X@HKUST Conference took place in Hong Kong in November 2015, jointly organized by HKUST and Google Headquarters and coordinated by IPO. The Solve for X competition seeks to encourage out-of-the-box projects, known as moonshots. Such projects set out to solve a global problem that impacts millions of lives through a radical solution involving breakthrough science or technology. At the conference, five innovators discussed their moonshot projects, which included next-generation material for batteries and non-invasive retinal disease treatment.

A career advisor started work in July 2015 to assist IPO students in understanding themselves and potential career directions through the use of professional assessment tools. These included the Myers-Briggs Type Indicator (MBTI®) Workshop enabling students to assess their natural strengths and possible areas for growth; and the SHL Talent Measurement™ Occupational Personality Questionnaire (OPQ32r), a personality assessment tool that focuses specifically on workplace behaviors. The career advisor also runs individual advising sessions to give specific advice, encompassing mock interviews, CV clinics, or consultations on personal growth and career development. Over 200 IPO students have used the career services.

STEPPING BEYOND HONG KONG

Dual Degree Program in Technology and Management students took part in the Technology and Management International Business Plan Competition 2016 alongside peers from the University of Illinois at Urbana-Champaign, University of Bayreuth, and University of Sao Paulo. The contest, held in Brazil, focused on "New Horizons for Unmanned Aerial Vehicle (UAV) Technology", with students working in multicultural teams to draw up business plans. They also visited several companies leading the way in UAV innovation in Brazil. Working with people from North/South America and Europe on the latest UAV technology was a fresh way to experience cultural exchange and a great inspiration for students with regard to UAV applications.

Students from the BSc in Environmental Management and Technology and MSc in Environmental Science and Management Programs, visited Seoul, South Korea, to explore the city's sustainability measures.

BRIDGE TO THE WORKING WORLD

IPO emphasizes connections with industry liaison to bridge the gap between university education and the workplace. Plans are now underway to form an industry resource network, with people from various industries sought to become "industrial fellows", who will serve as guest speakers, guide students as mentors, provide advice and relay their working experience to students.

In March 2016, Mr Bin Lin, Co-founder and President of Xiaomi Corporation, spoke to students about how he disrupted the world's mobile markets, and his innovation and start-up journey as an engineer, at the Technology and Management Executive Forum, organized by the Dual Degree Program Office.

The annual RMBI Symposium continued to draw together experts from academia and industry to meet and exchange views and to give students the opportunity to learn first-hand lessons on risk management (RM) and business intelligence (BI) from industry professionals. The focus in 2016 was data management in business applications, regulatory issues of risk management, and the latest market trends.

ACROSS RESEARCH DISCIPLINES

The Max Planck Society-Croucher Foundation Joint Workshop on Molecular Systems Engineering Sciences in April served as an excellent platform for interdisciplinary research exchange. Organized by IPO over three days, the workshop brought together researchers from different Max Planck Institutes in Germany and universities in Hong Kong for in-depth discussion on topics including: material science and physics; single cell/molecule manipulation; biomaterials, cell migration and cell matrix interaction; and medical devices, imaging, optics and photonics, among others.

HKUST FOK YING TUNG GRADUATE SCHOOL

2015-16 heralded an extension of innovation, and entrepreneurship endeavors under the leadership of a new dean

In September 2015, Prof Enboa Wu was appointed Dean of HKUST Fok Ying Tung Graduate School, concurrently serving as Associate Vice-President for Knowledge Transfer and Professor of Engineering Practice in the Department of Electronic and Computer Engineering at HKUST. Prof Wu is leading the School and University's knowledge transfer initiatives to fresh heights. He previously spent over 10 years at the Hong Kong Applied Science and Technology Research Institute.

The School's mission is to ensure that the University's innovation and technology advancement efforts in Mainland China are integrated and coordinated in a coherent manner. As such, the School oversees the University's knowledge transfer and commercialization endeavors at HKUST Fok Ying Tung Research Institute (FYTRI) in Guangzhou, HKUST Shenzhen Research Institute (SRI), and HKUST LED-FPD Technology R&D Center in Foshan (FSC). In 2015-16, the three units were awarded 93 R&D projects totaling $59 million from central, provincial, municipal, and district governments, and from local industry. Given the units' achievements and impact on local industry and society, each was recognized as a New Type of Research Institute by the Guangdong provincial government in 2015.

FYTRI, HKUST's largest technology transfer and commercialization platform in the Mainland, launched the International Smart Manufacturing Platform (ISMP) to serve as an open innovation platform for international collaborative research and technology transfer in advanced materials, smart manufacturing, and the internet of things. ISMP, endorsed by the Guangzhou municipal government and local industry, attracted 52 R&D proposals for downstream research and funding support. In addition, the International Entrepreneurship Platform was established, helping to draw 158 teams to take part in the first Guangzhou regional contest in the HKUST One Million Dollar Entrepreneurship Competition, which extended from Hong Kong in 2016 to encompass heats in several other cities. The grand final will feature winning teams from all the regional competitions, namely Hong Kong, Shenzhen, Beijing, Macao and Guangzhou and take place at Fok Ying Tung Research Institute in August 2016. A joint incubation initiative with Nansha IT Park was set up to build a new industry cluster for Nansha in the next few years. The Institute's Supercomputing Service Platform was also launched to provide access to Guangzhou Supercomputing Center, one of the world's fastest for computation. The service platform is initially open to HKUST researchers and will be expanded to other universities in Hong Kong, bringing a state-of-the-art resource to the city.

In the past year, SRI broadened its scope to business entrepreneurship and start-up incubation, and several activities were organized in line with this move. The Institute hosted the first Shenzhen One-Million Dollar Entrepreneurship Regional Competition and established the "Blue Bay" incubator program to encourage HKUST faculty, students, and alumni to access facilities and services such as office space, legal advice, and financial consultancy. Four major alumni events were also held during 2015-16, including large-scale galas focused on entrepreneurship at Mid-Autumn Festival and Lunar New Year. Institute training programs, courses, public lectures and forums have been held during the year and further expanded HKUST's reach in the surrounding area.

FSC started to migrate from LED-centric research and development, and testing and certification, to next-generation III-V device packaging technology development and to spin off its LED testing and service business.

HKUST JOCKEY CLUB INSTITUTE FOR ADVANCED STUDY

The global knowledge hub continued to bring together some of the world's most brilliant minds on campus

Academics at the Institute, which is also known as IAS, enhanced and inspired leading intellectual endeavor through their presence and activities at the University and in the community.

LEADING THE WAY

During the year, the Institute was delighted to welcome Nobel Laureate in Physics Prof George Smoot, who has joined the Institute as IAS Helmut & Anna Pao Sohmen Professor-at-Large.

Among prominent events over the year under review, IAS Bank of East Asia Professor Ching W Tang co-organized an international conference on organic photovoltaic materials and devices and IAS Si Yuan Professor Gunther Uhlmann delivered a course on Calderon's inverse problem for postgraduate students. IAS Helmut & Anna Pao Sohmen Professor-at-Large and Nobel Laureate in Economic Sciences Prof Sir Christopher A Pissarides was also interviewed by the media regarding the Greek crisis and the Eurozone's future.

Seventeen HKUST professors are now IAS Senior Fellows and IAS Fellows helping to drive forward interaction between researchers on campus and host activities for IAS. Ten Junior Fellows and 19 Postdoctoral Fellows from various disciplines are also on board, with more expected to join in the future.

In 2015-16, IAS hosted 24 Visiting Professors, 11 Senior Visiting Fellows and eight Visiting Fellows on campus, where they collaborated and interacted with faculty and students in a variety of ways. For example, IAS Visiting Professor Chih Ming Ho, University of California, Los Angeles, worked with faculty members from Life Science, Mathematics and Mechanical and Aerospace engineering on research projects focused on traditional Chinese medicine and drug effectiveness. Most visiting appointees are members of national academies or of equivalent stature.

SPARKING FRESH DIRECTIONS

In 2015-16, IAS held over 170 academic events, including 49 distinguished lectures, 44 joint school lectures and a UC RUSAL President's Forum, attracting over 10,000 participants in total.

IAS also organized topical research programs on specialized topics to foster further studies and the formation of more research groups. Subjects included materials science, transcription, creative Chinese writing, stem cell research, graphical models and network analysis, high energy physics, condensed matter and cold atomic systems. Different formats were employed, including workshops and short courses, to provide participants with deeper understanding of the most recent breakthroughs.

Eight Gordon Research Conferences, academic gatherings of global renown, were held at the Institute in Summer 2015. The conferences covered fields in life science, engineering and physical sciences. HKUST faculty chaired three.

SUSTAINABILITY

HKUST is committed to creating a more eco-friendly campus and taking a leadership role in motivating the wider community

Campus endeavors steadily moved forward in 2015-16, with advances in strategic resource reductions in greenhouse gases and waste, the launch of the HKUST 2020 Sustainability Challenge, and further building of students' environmental project management capabilities.

EMISSIONS AND WASTE REDUCTION

The reduction of greenhouse gas (GHG) emissions and landfill waste have been identified as the two highest sustainability priorities for the University. At HKUST, over 96% of GHG emissions come from electricity. During the year under review, GHG emissions decreased by over 13%. Overall waste was reduced by 4% while recycling increased by 15%. In addition, the University made several important investments in waste reduction strategies, including installing recycling bins on all floors of residence halls, modifying cleaning contracts to gain accurate daily weight data, and conducting waste audits to provide a clearer picture of sources and causes of waste. With such information, HKUST is poised to make significant progress over the next few years.

LIVING LAB

The HKUST 2020 Sustainability Challenge, launched during the period under review, is a five-year plan that seeks to develop the University's Clear Water Bay campus into a living lab for sustainable practices and experiential learning. Areas of focus encompass education, operations, on-site demonstration projects that contribute to sustainability and showcase the work of HKUST researchers, and the engagement of the HKUST community in an ideas-sharing Sustainability Network. The long-term vision is to transform the campus into a carbon-neutral, zero waste and net-positive environmental impact model for sustainability education globally.

During the year, participants from across the University worked together on action plans related to the Challenge. On the operations side, an Executive Committee was set up and working groups formed to develop recommendations relating to high-performance buildings, green renovation standards, and green labs. The launch of the Sustainability Network will assist University members in building a more vibrant and sustainable campus, including a Green Team to work on group projects, a Gardening Club to help beautify the campus, and a Sustainability Lunch & Learn series for staff to gain the latest information on best practices.

Separately, through the Shanghai Commercial Bank-HKUST Sustainable Campus Leadership Program, students continued to gain hands-on experience of eco-project management and problem-solving by designing and undertaking initiatives to improve the campus environment.

↓ 13.2%

Percentage change of GREENHOUSE GAS ($CO_{2\text{-}e}$) from ELECTRICITY from 59,600 (2014-2015) to 51,700 (2015-2016)

↓ 3.9%

Percentage change of TRASH (TON) from 2,555 (2014-2015) to 2,455 (2015-2016)

↑ 15%

Percentage change of RECYCLABLES (TON) from 114 (2014-2015) to 131 (2015-2016)

GOVERNANCE

In accordance with the University Ordinance and Statutes, the Court, Council and Senate are the three supreme bodies that constitute HKUST's governance structure

The Court
The Court is the University's highest advisory body, comprising around 40 honorary members and 40 appointed members, and Members of the University. The Court met twice during the year under review.

In December 2015, the Court reviewed and gave advice to the development strategies of the HKUST Leadership and Public Policy Executive Education Programs (LAPP), which aims to nurture the future generation of globally minded leaders in government, corporate and nonprofit sectors. In April 2016, Court members shared their experience with participants during a presentation by the President and faculty members on the University's internationalization efforts and indicated their support to related initiatives proposed by the University.

The Council
The Council is the University's highest governing body. It comprises 27 members, including a lay Chairman, 16 other lay members, and University representatives. During the period under review, Council Members had participated in a Council retreat in January 2016 and a consultation session in May 2016 to offer their valuable advice to the University's Five Year Strategic Plan.

To further enhance good governance, a Task Force was set up in August 2015 to review the Council's effectiveness in the fulfillment of its duties. Among other issues, the Task Force is expected to review the University's policy and regulatory processes, and help co-ordinate necessary action arising from recommendations in the University Grants Committee report on "Governance in UGC-funded Higher Education Institutions in Hong Kong", released in March 2016.

In response to the fast-moving international initiatives in entrepreneurship and technology transfer, the Council established a Knowledge Transfer Committee in March 2016 to plan and develop relevant strategies in this area.

The Senate
The Senate is the University's highest academic body which comprises over 60 members of the University. Chaired by the President, members of the Senate include the Executive Vice-President & Provost, Vice-Presidents, Deans, heads of academic departments and units, and other staff and student representatives. Over the year, the Senate set out and reviewed academic policies proposed and developed in consultation with Schools and committees.

Apart from the new policies and regulations on academic programs reviewed and approved by the Senate, some additional measures have been endorsed by the Senate with an aim to improving the English language proficiency and presentation skills of research postgraduate students (RPgs). Moreover, in order to strengthen the manpower in launching of various new initiatives in the Institute for Public Policy and the Interdisciplinary Programs Office, a framework of appointment procedure for non-tenure track academic titles has been established.

AWARDS AND RECOGNITIONS

Faculty members and students have received numerous honors and accolades over the year. The following list is not exhaustive

FACULTY

1 **Prof Charles Ng**, Department of Civil and Environmental Engineering, received the State Scientific and Technological Progress Award, Second Class, from the State Council of the PRC for his project, "Novel Supporting Technologies and their Applications on the Safe and Economical Construction of Long, Large and Extra Deep Excavations".

2 **Prof Christopher Leung**, Department of Civil and Environmental Engineering, was awarded a State Natural Science Award, Second Class, by the State Council of the PRC, for his study exploring "Double-K Fracture Criterion for Crack Propagation in Concrete Structures and Fundamental Research on the Improvement of Crack-Control Performance".

3 **Prof Xiangtong Qi**, Department of Industrial Engineering and Logistics Management, received a Higher Education Outstanding Scientific Research Output Award (Science and Technology), Second Class in Natural Science, from the Ministry of Education for research on "Theory, Method, and Application of Game under Uncertain Environments".

4 **Prof Gyu Boong Jo**, Department of Physics, was honored with a prestigious Croucher Innovation Award 2016 by the Croucher Foundation.

5 **Prof Yilong Han**, Department of Physics, received a Chinese Young Scientist Award, jointly presented by the Organization Department of the Communist Party of China Central Committee (CPCCC), Ministry of Human Resources and Social Security of the PRC, and the China Association of Science.

6 **Prof Kam Tim Woo**, Department of Electronic and Computer Engineering, was the recipient of the 2015 University Grants Committee (UGC) Teaching Award.

7 **Prof Patrick Yue**, Department of Electronic and Computer Engineering, received a Guanghua Engineering Science and Technology Prize Youth Award from the Chinese Academy of Engineering.

8 **Prof Tianshou Zhao**, Department of Mechanical and Aerospace Engineering, was named one of Thomson Reuters' Highly Cited Researchers in Engineering.

9 The International Association for Wind Engineering honored **Prof Tim Tse**, Department of Civil and Environmental Engineering, with an Junior Award.

10 *My Teachers and My Friends*, written by **Prof Liu Zaifu**, Division of Humanities, was selected as one of Asia Monthly's Top Ten Best Books.

Fellows & Board Memberships

11 **Prof Nancy Ip**, Dean of Science, was elected a Foreign Honorary Member of the American Academy of Arts and Sciences.

12 **Prof Guanghao Chen**, Department of Civil and Environmental Engineering, was elected a Distinguished Fellow of the International Water Association.

13 **Prof Guohua Chen**, Department of Chemical and Biomolecular Engineering, was elected a Fellow of the American Institute of Chemical Engineers.

14 **Prof Pascale Fung**, Department of Electronic and Computer Engineering, was elected a Fellow of the International Speech Communication Association.

15 **Prof Jiatao Li**, Senior Associate Dean of the Business School and Lee Quo Wei Professor of Business, was elected a Fellow of the Academy of International Business.

16 **Prof Chak Chan**, Division of Environment, was made a Distinguished Fellow of the American Industrial Hygiene Association in recognition of his contributions to the field.

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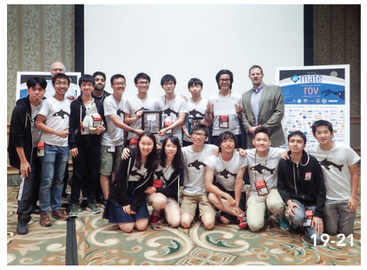
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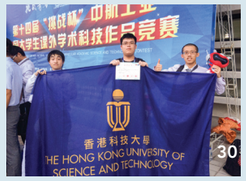

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STUDENTS AND RESEARCHERS

The HKUST Robotics Team comprising 60 students from different departments gained many awards over the year.

Robocon Teams

17 First and Second Runners-up, Robocon 2016 Hong Kong Contest

18 First Runner-Up, 2015 ABU Asia-Pacific Robot Contest

Remotely Operated Vehicle (ROV) Team

19 Championship, Explorer Class, 11th Hong Kong/Asia Regional IET/MATE Underwater Robot Challenge

20 Overall Third Runner-up and Guts and Glory Award, MATE International ROV Competition 2016

21 Albert Tanoto, Chemical and Biomolecular Engineering, Most Valuable Person "MVP" Award in Product Presentation, MATE International ROV Competition 2016

Smart Car Teams

22 Two Third Class Awards, Certificate of Merit, 10th Freescale Cup Smart Car Competition, South China Region

Others

23 PhD graduate **Dr Qing Lu**, Division of Life Science, received the Young Scientist Award from the Hong Kong Institute of Science.

24 A Chemistry undergraduate team, comprising **Samantha Ting Hung, Teddy Lap Tak Hung** and **Nadiya Aisha Yudiana**, won the 2016 Hong Kong Chemistry Olympiad Championship.

25 MSc students **Lixie Hu, Xiaoyang Liu** and **Hao Lu**, Mechanical and Aerospace Engineering, received the Global Youth Innovator Award at the 2016 iCAN Consumer Electronics Show.

26 HKUST's Unmanned Aerial Vehicle team brought home the first prize from the International Aerial Robotics Competition 2015 – Asia/Pacific Venue.

27 A team from the University's Aeronautics Interest Group student organization, supported by the Department of Mechanical and Aerospace Engineering, ranked second in Asia and first in Hong Kong at the 2016 American Institute of Aeronautics and Astronautics Design/Build/Fly Competition.

28 Undergraduate **Karen Ka Long Leong**, Mechanical and Aerospace Engineering, was awarded the Arthur L Williston Medal by the American Society of Mechanical Engineers.

29 Research Associate **Dr Changsheng Chen** and PhD students **Baojian Zhou**, Electronic and Computer Engineering, and **Jun Ma**, Civil and Environmental Engineering, won First Prize at the 2015 Inno-China Entrepreneurship Competition.

30 Undergraduates **Renjing Huang, Po Sang Lo** and **Chun Ki Yeung**, Chemical and Biomolecular Engineering, won multiple awards at the 14th National Challenge Cup, including the Grand Prize in the Grand Final, First Prize in the Theme-based Competition on "Smart Green Cities", and Second Prize in the Hong Kong Regional Competition.

31 Postdoctoral Fellow **Youzhe Fan**, MPhil students **Ji Chen** and **Chenyang Xia**, Electronic and Computer Engineering, won the Gold Award at the first 5G Algorithm Innovation Competition, held as part of the InnovateAsia FPGA Design Contest.

32 HKUST solar car team **Sunstrider** won the Energy Efficient Design Award at the New Energy New Generation Solar Car Competition, organized by the Environment Bureau and the Electrical and Mechanical Services Department of the HKSAR Government.

33 PhD student **To Hung Tsui** and Postdoctoral Research Fellow **Dr TianWei Hao**, Civil and Environmental Engineering, secured the Grand Prize at the 2016 HKIE Innovation Awards for Young Members (Category I).

34 Global Business students **Julia Leung**, **Alan Lam, Chevan Tin** and **Tony Hui** triumphed in the Hong Kong Institute of Certified Public Accountants (HKICPA) Qualification Programme Case Analysis Competition 2015. Julia was also named Best Presenter.

35 Quantitative Finance students **Henry Chow, Billy Lee, Serena Wu** and **Jason Zhao** teamed up with **Leo Chen,** Finance, to win the top honor at the Hong Kong Final of the Chartered Financial Analysts Institute Research Challenge 2015-2016.

36 A team comprising **Dexter Mak** and **Sam Tsang**, Quantitative Finance, **Jean Li**, Global Business and Finance, and **Steven Yu**, Professional Accounting and Finance, won the SCMP/IFPHK Financial Planner Awards for 2015 (University Student Category).

37 Global Business and Finance undergraduate **Bradley Chiang** was named one of the "30 Under 30" in the Consumer Tech Sector by Forbes Asia.

38 Risk Management and Business Intelligence Program undergraduates **Ricky Tsz Lok Chan** and **Charles Shun Kit Wong** won the Championship at the Business Sustainability and Risk Management Case Analysis Competition 2016, organized by The Association of International Accountants.

HKUST MEDALS

39 **Jeffry Wicaksana**, Electronic and Computer Engineering, and **Kenta Iwasaki**, School of Engineering, won the HKUST President's Cup.

40 The Sundial Technology team, comprising **Alessandro Calo, Kwong Hoi Tsui, Wing Yi Chak** and **Sihao Chen,** and advised by Prof Zhiyong Fan, Electronic and Computer Engineering, won the President's Prize, Innovation Prize and Student Team Prize in the sixth annual One Million Dollar Entrepreneurship Competition.

41 **Prof Kam Tim Woo**, Electronic and Computer Engineering, received the Michael G Gale Medal for Distinguished Teaching.

42 **Man Kit Tsang**, Professional Accounting and Information Systems, Vice-President (Internal) of the Students' Union 2013-2014, was awarded the Stephen Cheong Kam-chuen Medal for Distinguished Service to the Student Body.

43 **Prof Roger Levermore** and **Dr Cubie Lau**, Management, won the HKUST Common Core Course Excellence Award 2015 for the course "Developing the Leader in You".

HONORARY DOCTORATES AND HONORARY FELLOWS

Honorary Doctorates

Prof Lap Chee Tsui, GBS, JP, world-renowned molecular biologist

Dr James E Thompson, GBS, Founder and Chairman of Crown Worldwide Group

Dr Raghuram G Rajan, Governor of the Reserve Bank of India

Prof Sir John Pendry, FRS, Chair Professor in Theoretical Solid State Physics, Imperial College

Dr Hans Michael Jebsen, BBS, Chairman of Jebsen Group

Honorary Fellows

Mr Ming Wai Lau, Chairman of Chinese Estates Holdings Limited

Dr Benjamin Xiao Yi Li, Founder and Chief Executive Officer of Lee's Pharmaceutical Holdings Limited

Mr Maximilian Yung Kit Ma, Chairman of Lee Heng Diamond Group and Founder and Chairman of MaBelle Jewellery Company Limited

Mr Samuel Tat Sum Wong, Executive Director of B L Wong (Holdings) Company Limited and Pokfulam Development Company Limited

CALENDAR OF EVENTS 2015

JULY

HKUST's signature Undergraduate Research Opportunities Program (UROP) entered its 10th anniversary year.

AUGUST

The prestigious Gordon Research Conference on Marine Molecular Ecology was held at the HKUST Jockey Club Institute for Advanced Study, co-chaired by Prof Hongbin Liu (Life Science) and Prof Peter D Steinberg (University of New South Wales). The focus was on linking molecular mechanisms with ecological outcomes.

The 5th International Conference on Logistics and Maritime Systems successfully took place on campus. The forum's theme was "Ocean Transport Logistics: Making the Global Supply Chain Effective".

SEPTEMBER

The ASPIRE Forum was hosted at the University for members of the Asian Science and Technology Pioneering Institutes of Research and Education (ASPIRE) League, comprising HKUST, Korea Advanced Institute of Science and Technology, Nanyang Technological University, Tokyo Institute of Technology and Tsinghua University. Activities included a "Smart Green Cities" symposium and week-long student workshop on innovation and entrepreneurship.

HKUST and Digital China Holdings Limited signed a framework agreement to establish the Smart City (Hong Kong) Research Institute.

OCTOBER

HKUST hosted Coursera's second annual Asia Regional Workshop in Hong Kong. Coursera is one of the world's major international platforms for Massive Open Online Courses (MOOCs).

A groundbreaking ceremony marked the start of the Water Sports Center Phase I project, followed by water polo, dragon boat and coastal rowing races involving more than 150 participants.

Prof Dan Shechtman, Nobel Laureate in Chemistry in 2011 and Philip Tobias Professor of Materials Science, Technion – Israel Institute of Technology, discussed how to nurture technological entrepreneurship at the UC RUSAL President's Forum and HKUST 25th Anniversary Distinguished Speakers Series.

NOVEMBER

HKUST and Google jointly organized the inaugural "Solve for X @ HKUST" Conference in Hong Kong to encourage technological breakthrough proposals with the potential to solve major global problems.

The University's 23rd Congregation conferred honorary doctorates on five distinguished academics and community leaders.

DECEMBER

Businessman and philanthropist Dr Li Dak Sum donated HK$300 million to three universities in Hong Kong, including HKUST, to set up scholarship schemes to nurture young talents.

HKUST established two Hong Kong branches of Chinese National Engineering Research Centers following approval from the Ministry of Science and Technology. The centers focus on Tissue Restoration and Reconstruction and Control and Treatment of Heavy Metal Pollution respectively.

The University celebrated the opening of the WeChat-HKUST Joint Laboratory on Artificial Intelligence Technology.

2016

JANUARY

HKUST's MBA Program was ranked first in Asia Pacific and 14th globally in the 2016 *Financial Times* Global MBA Ranking survey.

FEBRUARY

The University held an opening ceremony for the Cheng Yu Tung Building, which adds a new state-of-the-art research and academic building to the campus. The facility houses multidisciplinary laboratories, teaching and research facilities.

MARCH

HKUST held its third inauguration ceremony for the Named Professorship Program to honor eight outstanding faculty members and their donors.

APRIL

HKUST presented The Intimacy of Creativity (IC) World Premiere Concert in collaboration with the Hong Kong Philharmonic Orchestra, which served as 2016 IC ensemble-in-residence.

MAY

The University received a donation from industrialist Mr Raymond Chu, enabling the establishment of the HKUST Big Data for Bio-Intelligence Laboratory.

HKUST hosted the 17th Asian Physics Olympiad, bringing the large-scale annual event to Hong Kong for the first time. Almost 200 students from 26 countries and regions took part in the competition.

JUNE

The University received a HK$100 million donation from Dr Li Dak Sum to establish a research development fund to drive forward high-impact discoveries.

HKUST conferred Honorary Fellowships on four distinguished leaders.

The University received a donation of HK$150 million from Mr Martin Ka Shing Lee, Vice-Chairman of Henderson Land Development Company Limited, in support of a new Innovation Building that will help take HKUST to the next level of achievement.

HKUST and Times Higher Education (THE) jointly presented the inaugural two-day Asia Universities Summit. The gathering, part of the University's 25th Anniversary events, brought together global leaders in higher education and other sectors to share their insights on nurturing creativity and innovation.

FACTS AND FIGURES

STUDENTS

STUDENT ENROLMENT (as of 30 Sep 2016)

School / Area	Undergraduate	Postgraduate		Total
		Research	Taught	
Science	2156	536	328	3020
Engineering	3284	1181	1053	5518
Business and Management	3298	108	1288	4694
Humanities and Social Science	221	80	154	455
HKUST Fok Ying Tung Graduate School	0	1	0	1
Joint School/Interdisciplinary Programs	422	46	54	522
Total	**9381**	**1952**	**2877**	**14210**

NON-LOCAL STUDENT ENROLMENT (2015-16)

Home Country	Undergraduate	Postgraduate		Total
		Research	Taught	
Mainland China	660	1351	1378	**3389**
Other Asian Countries	620	155	174	**949**
Rest of the World	157	65	170	**392**
Total	**1437**	**1571**	**1722**	**4730**

UNDERGRADUATE EXCHANGES (2015-16)

Host / Destination Region	Exchange-in	%	Exchange-out	%
Mainland China	60	5.8	36	3.6
Asia	190	18.5	223	22.5
North America	350	34	290	29.3
Central and South America	2	0.2	0	0
Europe	415	40.3	428	43.2
Australia and New Zealand	12	1.2	14	1.4
Africa	0	0	0	0
Total	**1029**	**100**	**991**	**100**

GRADUATE NUMBERS (2015-16)

School / Area	Undergraduate	Postgraduate		Total
		Research	Taught	
Science	474	133	148	755
Engineering	790	243	768	1801
Business and Management	733	38	832	1603
Humanities and Social Science	50	23	128	201
HKUST Fok Ying Tung Graduate School	0	9	0	9
Joint School/Interdisciplinary Programs	156	15	37	208
Total	**2203**	**461**	**1913**	**4577**

EMPLOYMENT (2015)

	Undergraduates	Postgraduates			
		PhD	MPhil	Taught Master (Except MBA)	MBA
Employment Situation	**%**	**%**	**%**	**%**	**%**
Employed	85.6	74.4	44.1	51.2	94.2
Further Studies	10.4	2.8	33.3	5.1	1.0
Returned to Home Country or Emigrated	1.5	20.2	16.4	38.7	0
Others	2.5	2.8	6.2	5.0	4.8
Employment Situation by Industry	**%**	**%**	**%**	**%**	**%**
Commerce and Business	51.6	10.1	27.3	45.5	78.8
Engineering and Industry	33.5	12.6	32.5	36.7	20
Education	8.8	75.5	36.4	15	0
Government and Related Organizations	3.3	1.9	3.9	2.8	0
Community and Social Services	2.7	0	0	0	1.2

*Percentages may not add up to 100%, as they are rounded to the nearest percent.

FACULTY

FACULTY MEMBERS (as of 30 Jun 2016) (Full-time Equivalent) ^

School / Area	Regular	Visiting	Total
Science	137	17	154
Engineering	176	18	194
Business and Management	136	13	149
Humanities and Social Science	145	6	151
Interdisciplinary Programs	13	2	15
Total	**607**	**56**	**663**

^The above faculty numbers are reported in Full-time Equivalent (FTE) basis to reflect faculty's service distribution to each school/area.

RESEARCH

NO. OF NEW RESEARCH PROJECTS AND FUNDING (2015-16)

	Number	Funding (in HK$M)
UGC	417	85.1
RGC	207	173.4
Others	369	319.8
Total	**969***	**578.4****

* No. of projects does not add up due to projects with multiple sponsors.
** Includes R&D projects administrated by R and D Corporation and Mainland platforms.

NO. OF PATENTS (2015-16)

Filed	157
Granted	162

INTERNATIONAL RANKINGS

As of 22 Nov 2016

HKUST	**No. 2 in the world** (World's Top 50 Universities Under 50, QS Top 50 Under 50 2016)
	No. 4 in Asia (Asia's Top 300 Universities, QS Asian University Rankings 2016)
	No. 36 in the world (World's Top 800 Universities, QS World University Rankings 2016-17)
	No. 49 in the world (World's Top 800 Universities, Times Higher Education World University Rankings 2016-17)
	No. 13 in the world (Global Employability University Ranking 2016, Emerging)
School of Science	**No. 2 in Hong Kong, No. 28 in the world** (World's Top 200 Universities in Chemistry, QS World University Rankings by Subject 2016)
	No. 50 in the world (World's Top 200 Universities in Mathematics, QS World University Rankings by Subject 2016)
	No. 1 in Hong Kong, No. 37 in the world (World's Top 200 Universities in Materials Sciences, QS World University Rankings by Subject 2016)
School of Engineering	**No. 2 in Asia, No. 14 in the world** (World's Top 100 Universities in Computer Science, Times Higher Education World University Rankings 2016-17)
	No. 1 in Greater China, No. 16 in the world (World's Top 100 Universities in Engineering and Technology, Times Higher Education World University Rankings 2015-16)
	No. 1 in Greater China, No. 14 in the world (World's Top 200 Universities in Computer Science and Information Systems, QS World University Rankings by Subject 2016)
	No. 23 in the world (World's Top 200 Universities in Civil and Structural Engineering, QS World University Rankings by Subject 2016)
	No. 25 in the world (World's Top 200 Universities in Electrical and Electronic Engineering, QS World University Rankings by Subject 2016)
	No. 2 in Greater China, No. 30 in the world (World's Top 200 Universities in Chemical Engineering, QS World University Rankings by Subject 2016)
	No. 1 in Hong Kong, No. 39 in the world (World's Top 200 Universities in Mechanical, Aeronautical and Manufacturing Engineering, QS World University Rankings by Subject 2016)
	No. 2 in Hong Kong, No. 31 in the world (World's Top 200 Universities in Engineering/Technology and Computer Sciences, Academic Ranking of World Universities by Shanghai Jiao Tong University 2016)
School of Business and Management	**Kellogg-HKUST EMBA Program: No. 1 in the world** (Global EMBA Rankings, Financial Times 2016)
	Full-Time MBA Program: No. 14 in the world (Global MBA Rankings, Financial Times 2016)
	No. 2 in Asia, No. 18 in the world (World's Top 200 Universities in Business and Management Studies, QS World University Rankings by Subject 2016)
	No. 2 in Greater China, No. 24 in the world (World's Top 200 Universities in Statistics and Operational Research, QS World University Rankings by Subject 2016)
	No. 2 in Asia, No. 19 in the world (World's Top 200 Universities in Accounting and Finance, QS World University Rankings by Subject 2016)
	No. 1 in Greater China, No. 25 in the world (World's Top 200 Universities in Economics and Econometrics, QS World University Rankings by Subject 2016)
	No. 1 in Asia, No. 24 in the world (University of Texas at Dallas (UTD) Top 100 Business School Research Rankings 2016, based on research contributions in 2011-2015)
	No. 2 in Asia, No. 14 in the world (World's Top 100 Universities in Business & Economics, Times Higher Education World University Rankings 2016-17)
School of Humanities and Social Science	**No. 2 in Hong Kong, No. 80 in the world** (World's Top 100 Universities in Social Sciences, Times Higher Education World University Rankings 2016-17)
	No. 101-150 in the world (World's Top 200 Universities in Social Science, Academic Ranking of World Universities by Shanghai Jiao Tong University 2016)

APPENDICES

APPENDIX I: COURT, COUNCIL AND SENATE

As of 30 June 2016

COURT MEMBERSHIP

	Chairman	Dr John C C Chan, GBS, JP
	Honorary Chairmen	Dr the Hon Sir Sze-Yuen Chung, GBM, JP Dr Vincent H S Lo, GBS, JP
Ex-Officio Members	Chairman of the Council	The Hon Andrew Liao Cheung-Sing, GBS, SC, JP
	Vice-Chairman of the Council	Prof John Chai Yat-Chiu, JP
	Treasurer of the University	Mr John B Harrison
	President of the University	Prof Tony F Chan, JP
	Executive Vice-President & Provost	Prof Wei Shyy
	President of the Students' Union	Miss Gloria Chee-Wah Chiu
	President of the Alumni Association	Mr Alvin Lam
	Chairman of the Staff Association	Mr Donny K M Siu
Honorary Members	The Hon Sir David Akers-Jones, GBM, JP Dr Robin Y H Chan, GBS, JP Mr Ronnie C Chan Dr Thomas T T Chen Dr Christopher Cheng, GBS, OBE, JP Dr Henry Cheng, GBS Dr Cheng Hon-Kwan, GBS, OBE, JP Mr Paul M F Cheng, JP Mr Linus W L Cheung, JP Dr Raymond K F Ch'ien, GBS, JP Dr Alice Chiu, BBS, JP Dr Paul M Y Chow, GBS, JP Dr Stephen Chow, SBS, JP Dr Chow Yei Ching, GBS Dr Kenneth H Fang, GBS, JP Mr Tim Freshwater Dr William K Fung, SBS, JP Mr Hu Fa-Kuang, GBS, CBE, JP Mr Herman S M Hu, BBS, JP Mr Lester G Huang, JP Dr Simon S O Ip, JP	Dr Roger King Mr Walter P S Kwok, JP Dr Lau Wah-Sum, GBS, JP The Hon Lau Wong-Fat, GBM, GBS, JP Dr the Hon Charles Y K Lee, GBM, GBS, JP Dr the Hon Lee Shau-Kee, GBM Dr the Hon Andrew K N Li, GBM Ms Kai-Yin Lo, SBS Mr Winston Yau-Lai Lo, SBS Dr the Hon Lui Che-Woo, GBM, GBS, MBE, JP Mr Tim Lui Tim-Leung, BBS, JP Dr Michael H H Mak, SBS, JP Dr Anthony Neoh, SC, JP Mr David Teng Pong The Hon Sin Chung-Kai, SBS, JP Mr Kenneth Ting Woo-Shou, SBS, JP Dr Lawrence T Wong Dr Wilfred Y W Wong, SBS, JP Ms Marjorie Yang, GBS, JP Dr Geoffrey M T Yeh, SBS, JP Dr Larry C K Yung
Appointed Members	Mr Bernard Auyang Dr Anissa Chan, BBS, MH, JP Dr Charles S C Chan, BBS, JP Dr Ian Chan Yau-Nam, MH Mr Herbert S Cheng Jr Ms Lai-Yuen Chiang, JP Mrs Susan Chow Mr Ian C W Fok, SBS, JP Dr Patrick Y B Fung, JP Dr Aron H Harilela, JP Dr Hans Michael Jebsen, BBS Mr David W H Lee Mr Marcus C W Lee	Ms Margaret Lee Pui-Man Ms Rose Lee Wai-Mun, JP Dr Raymond Leung Siu-Hong Mr Sing-Cheong Liu, JP Mr Raymond C Lo Mr Francis Lui Yiu-Tung Mr Daryl Ng Win-Kong The Hon Abraham Shek Lai-Him, GBS, JP Mrs Audrey Slighton Dr James E Thompson, GBS Mr Wang Shi Mrs Christine Wong, SBS Mr Patrick Yeung Wai-Tim
Appointed Senate Representatives	Prof Che-Ting Chan Prof Karl Herrup	Prof Charles W W Ng Prof Peiyuan Qian

COUNCIL MEMBERSHIP

	Chairman	The Hon Andrew Liao Cheung-Sing, GBS, SC, JP
	Vice-Chairman	Prof John Chai Yat-Chiu, JP
	Treasurer of the University	Mr John B Harrison
	President of the University	Prof Tony F Chan, JP
	Executive Vice-President & Provost	Prof Wei Shyy
	Vice-President	Mr Mark Hodgson, *Administration and Business*
	Deans	Prof James Lee, *Dean of Humanities and Social Science* Prof Kar-Yan Tam, *Dean of Business and Management*
Academic Members of the Senate	Prof Christopher Yu-Hang Chao	Prof Roger Shu-Kwan Cheng
Chairman of Convocation	Mr Alvin Lam	
Elected Staff Member	Dr Tony Lam Wai-Leung	
Elected Student Member	Mr Chris Lau Yan-Chun	
Members Not Being Employees or Students of the University	Mr Johnson Cha Mou-Daid Mr Nicholas Chan Hiu-Fung Mr David Fong Man-Hung, BBS, JP Ms Anita Fung Yuen-Mei, BBS, JP Mrs Yvette Yeh Fung Prof Albert Yuk Keung Ip Prof Jack Lau	Mr Quinn Y K Law, SBS, JP Mr Michael Lee Tze-Hau, JP The Hon Starry Lee Wai-King, JP Ms Catherine K C Leung Mr Kyran Sze Ms Woo Chun-En Jennifer Mr Michael Wu Wei-Kuo

SENATE MEMBERSHIP

	Chairman	Prof Tony F Chan, *President*
	Executive Vice-President & Provost	Prof Wei Shyy
	Vice-Presidents	Mr Mark Hodgson, *Administration and Business* Dr Eden Y Woon, *Institutional Advancement* Prof Joseph Hun-Wei Lee, *Research and Graduate Studies*
School of Science	Prof Nancy Y Ip, Dean Prof Michael S Altman Prof Bradley A Foreman Prof Karl Herrup Prof Guochen Jia	Prof Zhenyang Lin Prof Yang Wang Prof Jun Xia Prof Jianzhen Yu
School of Engineering	Prof Tim K T Cheng, Dean Prof Christopher Chao Prof Guohua Chen Prof Guillermo Gallego Prof Jangkyo Kim Prof Jun-Shang Kuang	Prof Hong-Kam Lo Prof Huihe Qiu Prof Bertram Shi Prof Qiang Yang Prof King-Lun Yeung
School of Business and Management	Prof Kar-Yan Tam, Dean Prof Kevin C W Chen Mr Sean Ferguson Prof Vidhan Goyal Prof Mingyi Hung Prof Siu-Fai Leung	Prof J T Li Prof Anaimalai V Muthukrishnan Prof Emily M Nason Prof James Y L Thong Prof Shaohui Zheng
School of Humanities and Social Science	Prof James Lee, Dean Prof Billy K L So	Prof Kellee Tsai Prof Xiaogang Wu
HKUST Fok Ying Tung Graduate School	Prof Enboa Wu, Dean	
Dean of Students	Prof Kar-Yan Tam	
Interdisciplinary Programs Office	Prof King-Lau Chow, *Director* Prof Jimmy Fung	Prof I-Ming Hsing
Elected Members of the Academic Staff	Prof Furong Gao	Prof Andrew Miller

Co-opted Members of the Academic Staff	Prof David K Banfield Prof Che-Ting Chan Prof Roger Cheng Prof Elizabeth George Prof Ravindra S Goonetilleke	Prof Robert K M Ko Prof Charles W W Ng Prof Karl W K Tsim Prof Henry Tye Prof Min Yan
Directors	Dr Trevor Webb, *Academic Registrar, Acting* Ms Diana L H Chan, *Library*	Mrs Pandora Yuen, *Student Affairs*
Student Representatives	Miss Gloria Chee-Wah Chiu, *President of Students' Union* *Undergraduate Representative (Vacant)* Mr Oluwaseun John Dada, *Postgraduate Representative*	

MEMBERSHIP OF STANDING COMMITTEE

Chairman	The Hon Andrew Liao
Vice-Chairman	Prof John Chai
Members	Prof Tony F Chan Ms Anita Fung Yuen-Mei Mr John B Harrison Mr Mark Hodgson Mr Quinn Y K Law Prof Joseph Hun-Wei Lee Mr Michael Lee Tze-Hau Ms Catherine K C Leung Prof Wei Shyy Mr Kyran Sze Dr Eden Y Woon Mr Michael Wu Wei-Kuo

MEMBERSHIP OF AUDIT COMMITTEE

Chairman	Mr Quinn Y K Law
Members	Mr Nicholas Chan Hiu-Fung Ms Anita Fung Yuen-Mei Mr Wilson Fung Ying-Wai Mr Robert Gazzi

MEMBERSHIP OF CAMPUS DEVELOPMENT COMMITTEE

Chairman	Mr Kyran Sze
Members	Mr David Fong Man-Hung Dr Tony Lam Wai-Leung Mr Chris Lau Yan-Chun Mr Thomas Chan Chun-Yuen
Ex-officio	Mr Mark Hodgson

MEMBERSHIP OF FINANCE COMMITTEE

Chairman	Mr John B Harrison
Vice-Chairman	Ms Anita Fung Yuen-Mei
Members	Mr Johnson Cha Mou-Daid Mr Michael Lee Tze-Hau Ms Catherine K C Leung Mr Yiu Kin Wah Stephen
Ex-officio	Prof Wei Shyy Mr Mark Hodgson

MEMBERSHIP OF HONORARY AWARDS COMMITTEE

Chairman:	The Hon Andrew Liao
Vice-Chairman:	Prof Tony F Chan
Members	Mrs Yvette Yeh Fung Ms Margaret Lee Pui-Man Mr Maximilian Y K Ma Mr Sing Cheong Liu Prof Michael M T Loy Prof Daniel P Palomar Prof Kellee S Tsai Prof Susheng Wang

MEMBERSHIP OF HUMAN RESOURCES COMMITTEE

Chairman	Mr Michael Wu Wei-Kuo
Vice-Chairman	Mr John B Harrison
Members	Prof Albert IP Yuk-Keung Ms Catherine K C Leung Ms Woo Chun-En Jennifer Dr Michael H H Mak
Ex-officio	Prof Tony F Chan Prof Wei Shyy Mr Mark Hodgson

MEMBERSHIP OF INSTITUTIONAL ADVANCEMENT AND OUTREACH COMMITTEE

Chairman	Ms Catherine K C Leung
Vice-Chairman	Mr Michael Lee Tze-Hau
Members	Mrs Yvette Yeh Fung Prof Jack Lau Ms Woo Chun-En Jennifer Mr Michael Wu Wei-Kuo Mr Bernard Auyang Dr Charles S C Chan Dr Ian Chan Yau-Nam Dr Roger King Mr David W H Lee Ms Margaret Lee Pui-Man Mr Daryl Ng Win-Kong Dr James E Thompson Mr Kent Hau Mr Anish Lalvani Mr Maximilian Y K Ma Ms Teresa Ko Yuk-Yin
Ex-officio	Dr Eden Y Woon Prof James Lee

MEMBERSHIP OF KNOWLEDGE TRANSFER COMMITTEE

Chairman	Prof John Chai
Vice-Chairman	Prof Jack Lau
Members	Mr Nicholas Chan Hiu-Fung Mr Peter Cheung Ms Catherine K C Leung Mr Michael Wu Wei-Kuo Prof Ping Sheng Prof Chi-Ying Tsui
Ex-officio	Prof Wei Shyy Prof Enboa Wu

For the attendance and biographies of Council Members, please visit: https://www.ab.ust.hk/ccss/Council.htm

APPENDIX II: ACADEMIC ADVISORY COMMITTEE

SCHOOL OF SCIENCE ADVISORY COMMITTEE

Prof Marvin Cohen
University Professor, Department of Physics, University of California, Berkeley, USA

Prof Roger E Howe
Professor, Department of Mathematics, Yale University, USA

Prof Roberto Kolter
Professor, Department of Microbiology and Immunology, Harvard Medical School, USA

Prof Jean-Marie Lehn
Director of the Supramolecular Chemistry Laboratory, Institut de Science et d'Ingénierie Supramoléculaires (ISIS), Université Louis Pasteur, Strasbourg, France

Prof Patrick Lee
William & Emma Rogers Professor of Physics, Division Head, Atomic, Biological, Condensed Matter and Physics, Massachusetts Institute of Technology, USA

Prof George Papanicolaou
Robert Grimmett Professor in Mathematics, Department of Mathematics, Stanford University, USA

Prof Randy Schekman
Howard Hughes Investigator and Professor of Cell and Developmental Biology, Department of Molecular and Cell Biology, University of California, Berkeley, USA

Prof Xiaodong Wang
Director and Investigator, National Institute of Biological Sciences, Beijing, PR China

Prof Weitao Yang
Philip Handler Professor of Chemistry, Department of Chemistry, Duke University, USA

Prof King-Wai Yau
Professor of Neuroscience, The Solomon H Snyder Department of Neuroscience, Johns Hopkins University, USA

SCHOOL OF ENGINEERING ADVISORY COMMITTEE

Prof Gregory Fenves
President, Cockrell Family Chair in Engineering #15, The University of Texas at Austin, USA

Prof Vincent Poor
Dean of School of Engineering and Applied Science, Michael Henry Strater University Professor of Electrical Engineering, Princeton University, USA

Prof Yinyu Ye
Professor of Management Science and Engineering, Stanford University, USA

Ir Daniel Cheng, MH, JP
Managing Director, Dunwell Enviro-Tech (Holdings) Ltd

Ir Dr Andrew Chan Ka-ching
Chairman of Arup Group Trusts, Arup Group

Mr Pindar Wong
Chairman, VeriFi (HK) Limited

Mr Victor Ng
Managing Director, Micom Tech Limited

Mr Stanley Hui Hon-chung, JP
Deputy Chief Executive Officer of NWS Holdings

Ir Dr Hon Lo Wai-kwok, SBS, MH, JP
Member of the Legislative Council, Hong Kong

SCHOOL OF BUSINESS AND MANAGEMENT ADVISORY COUNCIL

Dr William Fung Kwok Lun, SBS, OBE, JP
Group Chairman
Li & Fung Ltd

Prof Sally Blount
Dean
Kellogg School of Management
Northwestern University

Mr Louis McDaniel Bowen
Chairman and Chief Executive Officer
Asia Capital Management Ltd and China Advisors Ltd

Dato' Cheng Hye Cheah
Chairman and Co-Chief Investment Officer
Value Partners Group Ltd

Mr Philip Chen, GBS
Managing Director
Hang Lung Properties

Mr Eric Fok Kai Shan
Vice President
Fok Ying Tung Group

Dr Yuning Fu
Chairman
China Resources

Ms Wendy Gan
Non-Executive Director
Chinney Alliance Group

Mr Akhil Gupta
2015 Advanced Leadership Fellow
Harvard University

Mr Benjamin Hung Pi Cheng, JP
Executive Director and Chief Executive Officer
Standard Chartered Bank (Hong Kong) Ltd

Dr Hans Michael Jebsen, BBS
Chairman
Jebsen & Co Ltd

Mr Keith Kerr, JP
Chairman
The Development Studio Ltd

Ms Teresa Ko Yuk Yin, JP
China Chairman
Freshfields Bruckhaus Deringer

Mr Manoj Kohli
Executive Chairman
Softbank Energy

Ms Noelle Kwok
Executive Director
Greenhill Investments Ltd

Mr Anish Lalvani
Chairman
Euro Suisse International Ltd

Dr Jack Lau
Founder and Former Chairman & CEO
Perception Digital Ltd

Mr Michael Lee, JP
Director
Oxer Ltd

Ms Catherine Leung
Managing Director
Serica Partners Asia Ltd

Mrs Margaret Leung, SBS, JP
Deputy Chairman and Managing Director
Chong Hing Bank Ltd

Ms Nisa Leung
Managing Partner
Qiming Venture Partners

Mr Sing-Cheong Liu, JP
Chairman
My Top Home (China) Holdings Limited

Dr Vincent H. S. Lo, GBS, JP
Chairman
Shui On Holdings Ltd

Mr Anthony Nightingale, CMG, GBS, JP
Director
Jardine Matheson Holdings Ltd

Dr Karen Reddington
President Asia Pacific Division
FedEx Express

Mr Wai-Kwong Seck
Chief Executive Officer, Asia Pacific
State Street Bank and Trust Co

Mr Weijian Shan
Chairman and CEO
PAG

Mr Sukanto Tanoto
Chairman
RGE Pte Ltd

Dr James E. Thompson, GBS
Chairman
Crown Worldwide Holdings Ltd

Mr Andy Tung
Chief Executive Officer
Orient Overseas Container Line Ltd

Dr Allan Wong Chi-Yun, GBS, MBE, JP
Chairman and Group Chief Executive Officer
VTech Holdings Ltd

Dr Rosanna Wong Yick-ming, DBE, JP
Executive Director
The Hong Kong Federation of Youth Groups

Mr Douglas Woo Chun Kuen
Chairman and Managing Director
Wheelock and Company Ltd

Mr Thomas Jefferson Wu
Managing Director
Hopewell Holdings Ltd

Ms Joy Xu JingHui
Global Head of HR (Global CHRO)
Sandoz, Novartis

Mr Arthur Yuen Kwok Hang, JP
Deputy Chief Executive
Hong Kong Monetary Authority

Mrs Betty Yuen So Siu Mai
Vice Chairman
CLP Power Hong Kong Ltd

Mr Shengman Zhang
Former Chairman, Asia Pacific
Citi

SCHOOL OF HUMANITIES AND SOCIAL SCIENCE ADVISORY COMMITTEE

Prof Angela Ki Che Leung
Chair Prof of History
Joseph Needham-Philip Mao Professor in Chinese History, Science & Civilization
Hong Kong Institute for the Humanities and Social Sciences
The University of Hong Kong

Prof Lydia Liu
Wu Tsun Tam Professor in the Humanities
Professor of Chinese and Comparative Literature
Columbia University

Prof Kenneth Pomeranz
Department Chair
University Professor of Modern Chinese History and in the College
University of Chicago

Prof Andrew Walder
Denise O'Leary and Kent Thiry Professor Department of Sociology
Stanford University

Prof Yunxiang Yan
Professor Department of Anthropology
UCLA

Mr Shengman Zhang
Former Chairman, Asia Pacific
Citi

INTERDISCIPLINARY PROGRAMS OFFICE ADVISORY BOARD

Prof Yue Chee Yoon
Associate Provost (Graduate Education)
President's Office
Nanyang Technological University

Prof Arup K Chakraborty
Robert T Haslam Professor of Chemical Engineering
Professor of Chemistry,
Professor of Physics
Professor of Biological Engineering
Director, Institute for Medical Engineering and Science
Massachusetts Institute of Technology
(Chair of the Advisory Board of the HKUST Division of Biomedical Engineering)

Prof Donald R Blake
Professor, Chemistry
School of Physical Sciences
Professor, Earth System Science
School of Physical Sciences
University of California, Irvine
(Chair of the Advisory Board of the HKUST Division of Environment)

APPENDIX III: FINANCE

OVERVIEW

Financial year 2015/16 closed with a surplus of $316 million (a small deficit of $5 million for 2014/15). The significant improvement over 2014/15 was mainly attributable to higher donation income and much reduced investment loss due to market conditions.

CONSOLIDATED INCOME AND EXPENDITURE

The consolidated income increased by $490 million to $4,318 million in 2015/16 ($3,828 million in 2014/15), attributable to a growth of $230 million in donation income, a reduction of $90 million in investment loss; the remainder included the usual additional University Grants Committee ("UGC") supplementary grants for General Pay Adjustment ("GPA") on salaries, and an increase in tuition fee income.

The consolidated expenditure increased by $185 million to $4,018 million ($3,833 million in 2014/15) which was mainly due to higher salary costs arising from GPA, as well as the general increases in other operating expenses for teaching and research activities.

SEGMENT RESULTS

Commentary on the operating segments, analysed by UGC-Funded Activities and non-UGC Funded Activities, is as follows:

UGC-Funded Activities:
UGC-Funded Activities showed a deficit of $28 million (deficit of $54 million for 2014/15). The 2015/16 deficit was driven by timing difference on expenditure funded by UGC matching grant. The University has over $2.3 billion of UGC funds that can be used to cover this deficit. The 2015/16 deficit was smaller than that in 2014/15, and was primarily due to a lower investment loss offset by reduced matching grants.

Non-UGC Funded Activities

- **Research Activities**
  Besides UGC, other government agencies and funding bodies provided research grants to the University. Completed commercial research projects resulted in a surplus of $17 million (surplus of $18 million for 2014/15).
- **Self-Financing Teaching**
  The Continuing Professional Education Programs ("CPEP") generated a surplus of $135 million (surplus of $101 million for 2014/15). The increase in surplus over 2014/15 was due to higher student enrollment, higher tuition fees and introduction of two new programs.
- **Donations Activities**
  The University had conducted concerted fund-raising efforts successfully on the occasion of its 25th Anniversary. Donations of $316 million, were secured and recognised, and contributed to a surplus of $195 million (deficit of $35 million for 2014/15) for this operating segment.

CAPITAL EXPENDITURE

The off-campus student hostel in Tseung Kwan O was completed in 2015/16 and will provide students with a convenient occupancy at close proximity to the University as from 2016/17. The new on-campus hospitality facility, Li Dak Sum Yip Yio Chin Kenneth Li Conference Lodge, which caters for the accommodation needs of visitors and overseas students for various academic and research activities and events, has started its full operation during the year. Other in-progress construction projects include the Multi-Purpose Auditorium, residence apartment for Research Postgraduate students, Indoor Sports Centre and Waterfront facilities.

As at 30 June 2016, the total commitments for approved construction projects and other capital items amounted to $1,706 million: $99 million of which will be funded by deferred income on hand, $1,210 million from existing University's Funds, $89 million by approved but yet to be received UGC grants and $308 million by pledged donations.

OUTLOOK

Going forward beyond its 25th Anniversary, the University will continue to enhance and capitalize on its financial, capital and human resources in teaching and research in pursuit of its strategic goals. On the financial side, in face of the on-going unstable environment in the investment market, the University will remain cautious in its capital management and ensure it maintains adequate reserves for the future.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the Year Ended 30 June 2016

	2016 $ MILLION	2015 $ MILLION
INCOME		
Government Subventions and Grants	2,334	2,241
Tuition, Programs and Other Fees	1,104	1,030
Interest and Investment Income	(6)	(96)
Donations and Benefactions	316	86
Auxiliary Services and Other Income	353	347
Transfers from Deferred Capital Funds	217	220
	4,318	**3,828**
EXPENDITURE		
Teaching, Learning and Research		
Teaching and Research	2,528	2,447
Library	108	104
Central Computing Facilities	118	127
Other Academic Services	106	97
	2,860	**2,775**
Institutional Support		
Management and General	289	241
Premises and Related Expenses	574	548
Student and General Education Services	246	237
Other Activities	49	32
	1,158	**1,058**
	4,018	**3,833**
SURPLUS / (DEFICIT) FROM OPERATION FOR THE YEAR	**300**	**(5)**
Share of Result of an Associate	15	1
Share of Result of a Joint Venture	1	(1)
SURPLUS / (DEFICIT) FOR THE YEAR BEFORE TAXATION	**316**	**(5)**
TAXATION	0	0
SURPLUS / (DEFICIT) FOR THE YEAR AFTER TAXATION	**316**	**(5)**
OTHER COMPREHENSIVE INCOME / (LOSS) FOR THE YEAR		
Items that may be reclassified subsequently to income and expenditure:		
Unrealised (loss) / gain on Available-for-Sale Financial Assets	(4)	3
Exchange differences arising from retranslation	(15)	0
	(19)	3
TOTAL COMPREHENSIVE INCOME / (LOSS) FOR THE YEAR	**297**	**(2)**
TRANSFERS TO / (FROM):		
UGC Funds	(28)	(54)
Restricted Funds	238	18
Other Funds	87	34
	297	**(2)**

CONSOLIDATED BALANCE SHEET

As at 30 June 2016

	As at 30 June 2016 $ MILLION	As at 30 June 2015 Restated $ MILLION	As at 1 July 2014 Restated $ MILLION
NON-CURRENT ASSETS			
Property, Plant and Equipment	4,976	4,813	4,551
Intangible Assets	7	6	21
Held-to-Maturity Financial Assets	71	71	108
Available-for-Sale Financial Assets	18	22	19
Financial Assets at Fair Value through Profit or Loss	5,275	4,171	4,295
Interest in an Associate	73	64	66
Interest in a Joint Venture	0	(1)	0
	10,420	9,146	9,060
CURRENT ASSETS			
Held-to-Maturity Financial Assets	0	37	5
Inventories	1	0	1
Accounts Receivable and Prepayments	187	202	257
Bank Deposits with Original Maturity over Three Months	716	1,661	1,375
Cash and Cash Equivalents	888	687	787
	1,792	2,587	2,425
CURRENT LIABILITIES			
Accounts Payable and Accruals	700	660	547
Provision for Staff Benefits	165	163	154
Deferred Income	687	659	604
Tax Payable	1	1	2
	1,553	1,483	1,307
NET CURRENT ASSETS	239	1,104	1,118
TOTAL ASSETS LESS CURRENT LIABILITIES	10,659	10,250	10,178
NON-CURRENT LIABILITIES			
Provision for Staff Benefits	29	22	22
Deferred Capital Funds	3,835	3,730	3,656
	3,864	3,752	3,678
NET ASSETS	**6,795**	**6,498**	**6,500**
UGC FUNDS	2,355	2,383	2,437
RESTRICTED FUNDS	1,177	932	914
OTHER FUNDS	3,263	3,183	3,149
TOTAL FUNDS	**6,795**	**6,498**	**6,500**

Note: The consolidated financial statements have been prepared in accordance with the new Statement of Recommended Practice issued by UGC, whereby the presentation of the consolidated financial statements has changed and certain comparative figures have been reclassified to conform with current year's presentation. According to the required accounting standard, three years' figures have been presented.

APPENDIX IV: INTERNAL CONTROL AND RISK MANAGEMENT

SUMMARY OF INTERNAL CONTROL AND MEASURES

The University has developed a system of internal control comprising both IT application based and manual controls as well as management reporting. In order to receive assurance that the system of internal control is effective and operating satisfactorily, the following arrangements are in place:

(a) A Control Self-Assessment Program requires individual units to self-review periodically the controls for which they are responsible and communicate the results to Management for follow-up action. This Program aims to raise awareness of internal control throughout the University and helps to assess the adequacy of the University's control processes.

(b) A consulting firm is appointed as the University's internal auditors to perform risk based independent reviews on the adequacy and effectiveness of the University's system of internal control and recommend areas for improvement.

(c) In addition to the statutory annual audit of the University's financial statements, the external auditors also carry out an independent assurance engagement on the University's compliance with the guidelines, terms and conditions imposed by the Government's University Grants Committee.

(d) The Audit Committee of the University agrees a program of work for the internal auditors; receives reports and considers control issues raised by the internal auditors and the external auditors. The program of audit work provides assurance that Management has put in place and upholds an effective internal control system.

(e) A Whistle Blowing Policy provides a safe and protected means by which employees and students of the University are enabled to raise concerns with the appropriate University authorities against any malpractice within the institution.

RISK MANAGEMENT

The University faces a number of principal risks and these are summarized below with associated mitigation. The University has various sources of assurance that its mitigation is effective.

(a) Academic risks:
The University strives to be a leader in education and research and it is essential it maintains an excellent reputation in these areas and is able to attract and retain the best global talents including students, faculty and staff. The University has broad and robust risk mitigation and assurance in academic areas including the quality of its faculty and UGC's direct review and assessment. In particular, the University undergoes periodic exercises such as Academic Development Planning (ADP), Research Assessment Exercise (RAE) and Quality Assurance Council (QAC) audits, each containing a broad range of topics including SWOT analysis. Some of the academic endeavors, such as research and growing parts of knowledge transfer, services and education, are also open to international benchmarking and peer review.

(b) Financial risks:
The University is dependent on funding from the Government and is therefore exposed to a substantial one off reduction in funding or sustained reduction of a significant part of its funding. The University also derives significant income from non-Government sources, such as its self-financed teaching courses where it is dependent on the competiveness of its offering both locally and internationally. The key mitigations for funding risks are maintaining a high academic reputation in both teaching and research and the amount of cash reserve available. The University is also exposed to financial risks, mainly market risks on its investments. Investment risk is mitigated by a diversified investment strategy with acceptable risk and return objectives approved by the Council and the employment of external advisors and investment managers. The Financial Statements contain further information about financial risks and their mitigation.

(c) Health & Safety:
The University operations require the use of hazardous materials, which can cause serious injury or death if not managed correctly. The University has a comprehensive Environmental Health & Safety (EHS) management program designed to manage this risk. The University is a complex campus where staff and students, live, work and study with continuous activity to maintain and expand campus facilities. The University has an on-campus medical facility able to respond to any situations. All contractors on site must comply with Hong Kong Healthy and Safety standards. University sports facilities are suitably supervised with users receiving appropriate training if necessary.

(d) Operational:
It is essential that the University up-holds the standards expected of a publicly funded institution. The University has a comprehensive code of conduct policy that all its members must comply with. Student welfare, on and off campus, is paramount and the University has implemented various measures to identify and manage any concerns of students. These include confidential access to team of professionally trained counselors if required. The University is also aware of student sentiment on a variety of political topics. Whilst supporting the right to freedom of speech, the University will remind students of the need to respect the law and that it will not tolerate any activities on our campus which degenerate into offensive tirades, advocacy of violence, or violence itself. The University has set itself high academic and non-academic standards, consistent with those of a world-class institution. Ensuring the buy-in of all staff to performance expectations and the related change program and maintaining staff morale during this time is a key risk. This is mitigated by a performance incentive for academic staff and broad staff engagement to communicate the rationale of strategies. Despite all planning and risk management, the University is vulnerable to a disaster whether naturally occurring or deliberately instigated. The University has the key components of a disaster recovery plan already developed, including tested emergency response procedures and restoration of back-up IT systems if necessary.

(e) Regulatory Compliance:
The University places high importance on full compliance with all relevant requirements, whether academic, operational, accounting, legal, tax, environmental, building code or the specific requirements of funders. It would not knowingly breach any requirements. The key mitigations are the employment of seasoned and qualified staff to ensure compliance, use of professional advisers whenever required, internal control procedures and independent audit.

(f) Technology:
As an open community, the University is vulnerable to unauthorized penetration of its IT networks, applications and data with potentially serious consequence. The University has a comprehensive cyber security policy and has implemented a variety of security measures including a dedicated team monitoring compliance with policy and any incidents. The University is also undertaking changes to some of its key administrative applications. It has invested in improved project management capability to ensure that changes to its key administrative systems do not cause any operational difficulty. The University uses external service providers to perform intensive IT audits periodically.

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