香港科技大學
THE HONG KONG
UNIVERSITY OF SCIENCE
AND TECHNOLOGY

SENG
工學院
SCHOOL OF
ENGINEERING

工学院 School of Engineering

年轻、充满朝气、活力、具前瞻性
Young, Dynamic & Forward-looking

名列世界排名榜前列的工学院
Top Ranking Engineering School in The World

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HKUST Engineering?

为何香港科技大学具有工程学强势？
Why HKUST Engineering?

年轻、充满朝气、活力、具前瞻性
全球排名顶尖

在香港科技大学工学院就读，令你成为这间具世界先进水平的教育重镇的一份子。科大工学院对工程领域做出的重大贡献，已经获得全球认同。令人赞叹不已的获奖校园，世界一流的设施以及活跃的学生社团，令原已充满启发性的学习体验更为丰盛。通过我们动感十足而又极为专业的工程学位课程，科大工学院有效地将知识、运用技术的能力和行之有效的沟通能力构筑在一起，能将你送入通向工程、商业、教育或其它领域的成功的职业发展轨道。

Young, Dynamic & Forward-looking
Top Ranking Engineering School in the World

Studying at HKUST School of Engineering (SENG) enables you to become part of a pioneering, world-class academic powerhouse, recognized globally as a leading contributor to the field of engineering. A stunning award-winning campus, state-of-the-art facilities and lively student community add further to your inspiring experience at HKUST. Through our dynamic, professional engineering degree programs, SENG effectively builds knowledge, technical skills and effective communication skills to set you on course for a successful career in engineering, business, academia and other fields.

香港科技大学及工学院的全球排名
World Rankings of HKUST & School of Engineering

全港各所大学工学院排名 **第一** ；在全球工程及科技领域，排名第 **19** 位。
No.**1** Engineering School in Hong Kong, No. **19** in the World in the area of Engineering and Technology

2016-2017年英国泰晤士报高等教育特刊全球大学排名榜
Times Higher Education World University Rankings, 2016-2017

全港各所大学工学院排名 **第一** ；在全球工程及科技领域，排名第 **14** 位。
No.**1** Engineering School in Hong Kong, No. **14** in the World in the area of Engineering and Technology

2015年QS全球大学排名榜
QS World University Rankings, 2015

香港科技大学于2016年《QS全球大学分科排名》- 工程及科技
HKUST in QS World Rankings by Subject – Engineering & Technology (2016)

14 计算机科学与信息系统
Computer Science &
Information Systems
大中华区之冠
No. 1 in Greater China

23 土木及结构工程
Civil & Structural
Engineering

30 化学工程
Chemical Engineering
全港第一
No. 1 in Hong Kong

25 电机及电子工程
Electrical & Electronic
Engineering

24 统计学与运筹学
Statistics and
Operational Research

39 机械‧航空及制造工程
Mechanical, Aeronautical &
Manufacturing Engineering
全港第一
No. 1 in Hong Kong

世界级的教授

工学院的卓越科研享有全球声誉。无论在成熟的工程领域抑或是初露头角的新领域，这一强势令教与学均得以在尖端科技的前沿进行。在香港科技大学，我们所有教授均拥有世界一流大学的博士学位，比如加州理工学院、剑桥大学、加拿大麦吉尔大学、麻省理工学院、牛津大学、普林斯顿大学、普渡大学、斯坦福大学、东京大学、多伦多大学、加州大学伯克利分校、耶鲁大学等。

World-Class Professors

The research excellence of School of Engineering academics is globally renowned, which empowers teaching and learning to be conducted at the forefront of the state-of-the-art in both established and emerging engineering fields. At HKUST, 100% of our professors hold PhD degrees from first-class universities around the world, including: Caltech, Cambridge, McGill, MIT, Oxford, Princeton, Purdue, Stanford, Tokyo, Toronto, UC Berkeley, Yale, etc.

国际专业认可

香港科技大学提供的工程课程经由香港工程师学会认证。香港工程师学会与澳大利亚、加拿大、新西兰、韩国、新加坡、英国以及美国等接近20个国家签署了华盛顿协约。通过此协约，香港科技大学的工程学位与其他签约国家所颁授的相互承认。 根据首尔协议，与计算机、信息及通讯技术相关的课程与澳大利亚、加拿大、中华台北、日本、韩国、英国和美国相互承认。 荣获颁发香港科技大学工学士的毕业生可以在上述国家具有工程界别的专业地位，为他们开启了在全球范围内的专业发展的光明前景。

International Professional Recognition

Engineering programs offered by HKUST are accredited by the Hong Kong Institution of Engineers. Through the Washington Accord, HKUST engineering degrees and those awarded by universities in close to 20 countries, namely Australia, Canada, Korea, Malaysia, New Zealand, Singapore, the United Kingdom and the United States are mutually recognized. Programs related to Computing and Information and Communication Technology are recognized under the Seoul Accord, which signatories include Australia, Canada, Chinese Taipei, Japan, Korea, the United Kingdom and the United States. Graduates with an HKUST BEng degree are guaranteed professional status by the engineering profession in these countries, opening up an international spectrum of jobs and career prospects.

国际交换生计划

为了增强我校学生的国际经验以及他们未来事业发展的竞争力，工学院积极地与120多所海外及内地的著名大学发展了学生交换计划。工学院也提供暑期学习计划，给同学在一般学期交流以外多添一个选择。此学习计划不但令学生在新学习环境中修读课程，更能在国外亲身体验风土人情，增添了异域文化氛围的熏陶。

U of Michigan 密西根大学
Michigan State U 密歇根州立大学

U of Iowa 爱荷华大学
Iowa State U 爱荷华州立大学
U of Illinois, Urbana-Champaign
伊利诺伊大学香槟分校
Northwestern U 西北大学
Purdue U 普渡大学
U of Wisconsin, Madison 威斯康星大学

U of Manitoba 曼尼托巴大学

U of Minnesota 明尼苏达大学

Simon Fraser U
西蒙菲沙大学
U of British Columbia
不列颠哥伦比亚大学

U of Washington
华盛顿大学

U of California (9 campuses) 加州大学
U of Southern California 美国南加州大学
U of Utah 犹他大学
Mills College 密尔斯学院

Arizona State U 亚利桑那州立大学

Rice U 莱斯大学
Texas A & M 德州A&M大学
UT Austin 得克萨斯大学奥斯汀分校

Missouri U of Science & Tech 密苏里科技大学
Washington U in St. Louis 圣路易斯华盛顿大学

Vanderbilt U 范德堡大学

Georgia Tech 佐治亚理工学院

U of Toronto
多伦多大学
U of Waterloo
滑铁卢大学

Stony Brook U
纽约州立大学石溪分校
Rensselaer Polytechnic Institute
伦斯勒理工学院
U of Rochester
罗彻斯特大学
Smith College
史密斯学院

U of Sao Paulo
圣保罗大学

Princeton U 普林斯顿大学
Cornell U 康奈尔大学
Drexel U 德雷塞尔大学
George Washington U 乔治华盛顿大学
Lehigh U 利哈伊大学
U of Pennsylvania 宾夕法尼亚大学
Rutgers 罗格斯大学
U of Virginia 弗吉尼亚大学
U of Massachusetts, Amherst 马萨诸塞大学
U of Florida 佛罗里达大学

International Exchange

To enhance the international exposure of our students and their competitive advantage in future career development, the School of Engineering actively develops its student exchange programs with over 120 reputable overseas and Mainland China universities. The School also offers summer study programs as an alternative to the exchange programs in regular semesters. The study programs enable the students to be exposed to a foreign culture while studying in a new learning environment.

Trinity College Dublin
都柏林圣三一学院

Newcastle U 纽卡斯尔大学
University College London (UCL) 伦敦大学学院
U of Aberdeen 阿伯丁大学
U of Bristol 布里斯托大学
U of Exeter 埃克斯特大学
U of Glasgow 格拉斯哥大学
U of Leeds 利兹大学
U of Sheffield 谢菲尔德大学
U of Southampton 南安普顿大学
U of Strathclyde 思克莱德大学
U of Sussex 萨塞克斯大学
U of Warwick 华威大学

Eindhoven U of Tech 埃因霍芬理工大学
Utrecht University 乌得勒支大学

ETH Zurich 苏黎世联邦理工学院
Linnaeus U 林奈大学
Royal Institute of Technology (KTH)
皇家理工学院

Helsinki Metropolia University of Applied Sciences
赫尔辛基应用科技大学

Technical U of Denmark
丹麦技术大学

Boğaziçi University 博阿齐奇大学
Kadir Has University 卡迪尔哈斯大学
Sabanci U 萨邦哲大学
Koç U 土耳其科克大学

Technion - Israel Institute of Technology
以色列理工学院

Politecnico di Milano 米兰理工大学

École Normale Supérieure 巴黎高等师范学院
Grenoble Institute of Technology 格勒诺布尔理工学院
ISEP 法国巴黎高等电子学院
Paris Sciences et Lettres 巴黎科学与文学联大

Universidad Politecnica de Valencia
瓦伦西亚理工大学

Dortmund U of Technology 多特蒙德科技大学
Technical U of Munich 慕尼黑工业大学
Munich U of Applied Sciences 慕尼黑应用科技大学
U of Stuttgart 斯图加特大学
Hamburg U of Applied Science 汉堡应用科技大学
RWTH Aachen U 亚琛工业大学

Czech Technical University in Prague 布拉格捷克理工大学

Beijing Institute of Technology 北京理工大学
Beihang U 北京航空航天大學
Fudan U 复旦大学
Harbin Institute of Technology 哈尔滨工业大学
Nankai U 南开大学
Nanjing U 南京大学
Peking U 北京大学
Shanghai Jiao Tong U 上海交通大学
Shuanhai U of Finance & Ecomonics 上海财经大学
Tsinghua U 清华大学
Xi'an Jiaotong U 西安交通大学
Zhejiang U 浙江大学

Tohoku U 东北大学
Nagoya U 名古屋大学
Sophia U 上智大学
Kyoto U 京都大学
U of Tokyo 東京大学

Ewha Womans University 梨花女子大学
KAIST 韩国科学技术院
Korea University 高丽大学
Seoul National U 首尔国立大学
SKKU 成均馆大学
POSTECH 浦项工科大学

National Central U 国立中央大学
National Chengchi University 国立政治大学
National Taiwan U 国立台湾大学
National Tsing Hua U 国立清华大学

Universiti Brunei Darussalam
文莱达鲁萨兰大学

U of Auckland 奥克兰大学
University of Canterbury
坎特伯雷大学

U of New South Wales
新南威尔士大学

Chulalongkorn U
朱拉隆功大学

Nanyang Technological U
南洋理工大学
National U of Singapore
新加坡国立大学
Singapore Management University
新加坡管理大学

Universiti Putra Malaysia
马来西亚布特拉大学
U of Malaya
马来亚大学

动态的教学大纲

在四年制以学院为基地的课程中，所有学生先由学院统一招收，而不是由个别的专业招收。他们在选择专业前，至少会有一年时间探索不同的工程学科。工学院的教学大纲极具灵活性，学生在选择了第一主修专业后，还可以选择其它副修课程或者更多主修课程，使得学生能够继续探索其它感兴趣的领域。

在就读的第一年，学生将获得科学和定量方法的基本知识，为接受工程教育做准备以及拓展通识教育知识面。这些学习有助于丰富学生的本科学习经验，亦为专业课程和其它学习机会的补充。

完成第一年的学业后，学生将从范围广泛的工程课程中选择自己的主修专业。所有工程学位课程都经过香港工程师学会的专业认证。

四年制的课程共需120个学分。新的教学大纲包含了以学生为中心的、而且内容广泛的课程结构，除了让学生在他们选择的专业领域上打下厚实的根基，还提供全方位的教育经验，准备将来多方面的职业发展，亦回应了学生的个人兴趣以及在事业发展上的抱负。

Dynamic Programs

Under the 4-year School-based program, all students will be admitted first to the School rather than to individual programs. They will have at least one year to explore various engineering disciplines before making their choice. The engineering curriculum has flexibility for students to take other minors or additional majors beyond the first major program, enabling students to pursue other areas of interests.
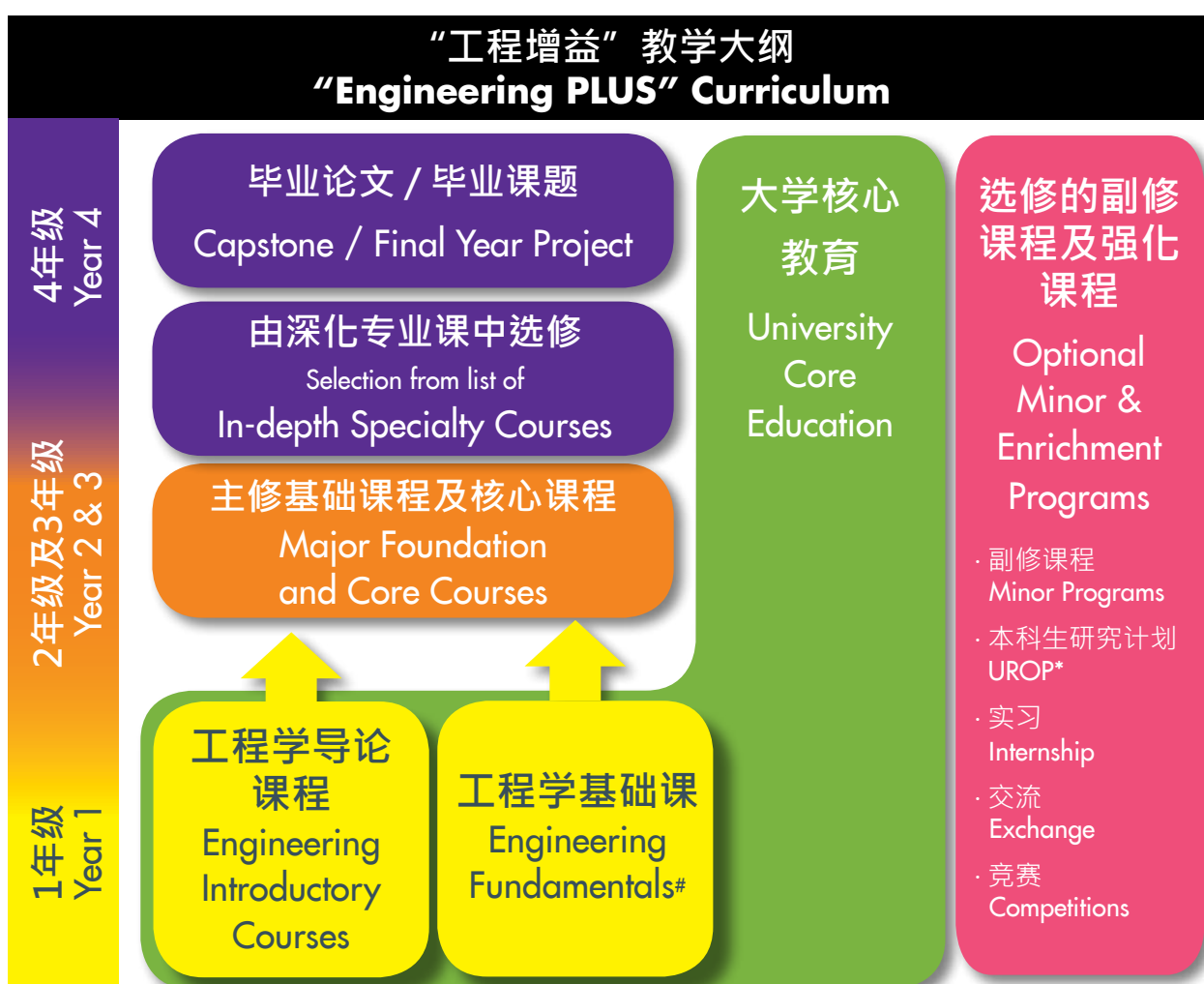
In the first year of study, students will acquire foundation knowledge in science and quantitative methods in preparation for the engineering education as well as a broad-based common core education, which aims to enrich students' overall undergraduate experience, complementing studies in specialist disciplines and other learning opportunities.

Upon completion of the first year, students willbe able to select a discipline within the School. All Bachelor of Engineering degree programs are accredited by the Hong Kong Institution of Engineers.

The four-year curriculum requires around 120 credits. The new curriculum encompasses a student-centered and broad-based program structure, enabling students to excel in areas of their choices, and an all-round educational experience in preparation for a diverse range of career options, in accordance with their individual interests and career aspiration.

Engineering PLUS: Preparing Leaders for Ultimate Successes

工程增益：培育全方位的成功領袖

"工程增益" 教学大纲
"Engineering PLUS" Curriculum

4年级 **Year 4**	**毕业论文 / 毕业课题** **Capstone / Final Year Project**	**大学核心教育** University Core Education
2年级及3年级 **Year 2 & 3**	**由深化专业课中选修** Selection from list of **In-depth Specialty Courses**	
	主修基础课程及核心课程 **Major Foundation and Core Courses**	
1年级 **Year 1**	**工程学导论课程** Engineering Introductory Courses **工程学基础课** Engineering Fundamentals#	

选修的副修课程及强化课程

Optional Minor & Enrichment Programs

· 副修课程
Minor Programs
· 本科生研究计划
UROP*
· 实习
Internship
· 交流
Exchange
· 竞赛
Competitions

\# 数学、科学、计算机、专业沟通
Mathematics, Science, Computing, Technical Communication

* 本科生研究计划
Undergraduate Research Opportunities Program

课程设置 Programs

作为在香港顶尖的工学院，香港科技大学工学院提供广泛的工程学课程，包括：

As the leading engineering school in Hong Kong, the School of Engineering at HKUST offers a wide spectrum of engineering programs, including:

主修课程 Major Programs

航空航天工程学工学士	BEng in Aerospace Engineering
化学工程学工学士	BEng in Chemical Engineering
化学及生物分子工程学工学士	BEng in Chemical and Biomolecular Engineering
化学及环境工程学工学士	BEng in Chemical and Environmental Engineering
土木工程学工学士	BEng in Civil Engineering
土木及环境工程学工学士	BEng in Civil and Environmental Engineering
计算机工程学工学士	BEng in Computer Engineering
计算机科学工学士	BEng in Computer Science
电子工程学工学士	BEng in Electronic Engineering
工业工程及工程管理学工学士	BEng in Industrial Engineering and Engineering Management
物流管理及工程学工学士	BEng in Logistics Management and Engineering
机械工程学工学士	BEng in Mechanical Engineering
计算机科学理学士	BSc in Computer Science

此外，工学院的学生结束在学院的首年学习后，亦可在跨学科课程之中选取一门，作为主修。

- 生物科技与管理学双学位课程 (理学士及工商管理学士)
- 科技与管理学双学位课程（工学士及工商管理学士）
- 环境管理及科技理学士
- 跨学科自选主修理学士
- 风险管理及商业智能学理学士

在工学院内部或学院以外选择一门副修课程，令学生得以丰富自身的学习经验。新的副修课程提供更多的选择，以便学生能面对21世纪的挑战。

Besides, engineering students may also select any one of the interdisciplinary majors after one year of study at the School.

- Dual Degree Program (BSc and BBA) in Biotechnology and Management
- Dual Degree Program (BEng and BBA) in Technology and Management
- BSc Environmental Management and Technology
- BSc Individualized Interdisciplinary Major
- BSc Risk Management and Business Intelligence

Students may enrich their learning experience by taking up a minor program within or outside the School of Engineering. New minor programs offered more choices for students to meet the challenges in the 21st century.

副修课程 Minor Programs

提供课程的学院 Offered By	课程 Programs
工学院 School of Engineering	航空工程、大数据技术、生物工程+、设计、创业#、环境持续发展与管理、资讯科技、可持續能源工程、科技管理 Aeronautical Engineering, Big Data Technology, Bioengineering+, Design, Entrepreneurship#, Environmental Sustainability and Management, Information Technology, Sustainable Energy Engineering, Technology Management
理学院 School of Science	精算数学、天体物理及宇宙学、生物物理、生物科学、生物科技、化学、环境科学、数学、物理 Actuarial Mathematics, Astrophysics and Cosmology, Biological Physics, Biological Science, Biotechnology, Chemistry, Environmental Science, Mathematics, Physics
人文及社会科学院 School of Humanities and Social Science	中国研究、通识研究、人文学、社会科学 China Studies, Liberal Studies, Humanities, Social Science
工商管理学院 School of Business and Management	商业 Business

+ 与生物医学工程学部合作
In collaboration with the Division of Biomedical Engineering

工学院与理学院及工商管理学院合办
Jointly offered by Schools of Engineering, Science and Business and Management

工程学是什么？

What is Engineering?

工程学包含科学、数学、经济学、社会学以及实际知识的获取和应用，以解决我们日常生活中的各种问题。因而，工程师是问题的解决者，他们用较低的费用去高效率地有效解决问题。工程师帮助我们改善现代生活，比如计算机芯片、卫星、医学设备以及可持续的能源技术等都是最好的范例。我们日常生活的每个侧面都可以体验到工程师的工作，包括用手机通电话、玩网络游戏、网上购物、驾车、步行过桥梁，甚至于涂抹润肤霜等。在我们周围的世界里，工程学无处不在。

Engineering involves the acquisition and application of scientific, mathematical, economic, social, and practical knowledge to solve problems in our daily lives. Engineers are therefore problem-solvers who make things work more efficiently and effectively at lower costs. Engineering helps to improve our modern life, as exemplified by great engineering inventions such as computer chips, satellites, medical devices and renewable energy technologies, etc. The work of engineers can be experienced in all parts of our daily lives which include making a call with mobile phone, playing internet games, shopping online, riding on a vehicle, walking across a bridge and even wearing body lotion. Engineering is everywhere in the world around us.
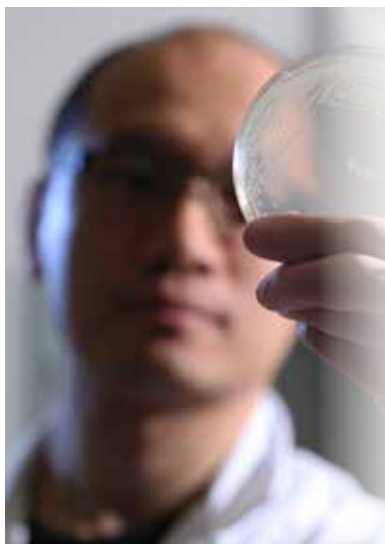
化学工程学工学士
BEng in Chemical Engineering

化学工程学是利用物理、化学和自然科学去解决在制造过程和加工设备方面与应用化学相关的课题的一门学问。学生学习设计化工厂；将原材料转化为有价值的产品；纯化产品以满足顾客的需要；确保高质量的产品；工厂自动化以实现生产过程的安全与经济；实现废物和污染物的最小化；获取利润的市场学和产品销售；使用化工设备的生产效能。已经完善的导师制以及管理架构可以确保学生在本科学习中获得恰当的支援。

Chemical Engineering is a discipline in which the principles of physical, chemical and natural sciences are used to solve applied chemistry related problems in manufacturing processes and plants. Students learn to design a manufacturing plant; transform raw materials into valuable products; purify the products to meet consumer demands; ensure high quality standard; automate the plant to make production safe and economical; minimize waste and pollution; market and sell the products at a profit; and work effectively with chemical engineering equipment. Mentoring and administrative structures are in place to ensure that students are given appropriate support during their undergraduate studies.

化学及生物分子工程学工学士
BEng in Chemical and Biomolecular Engineering

由于与生物相关的工业（药物、保健产品及生物产品）的持续增长，令社会对于在工程学和生命科学两方面都具专业知识的化学工程师需求日增。本课程结合生命科学的基础和应用的课程（生物学、生物化学、细胞生物学和药物工程学）以及化学工程的基础知识。学生将学习如何利用这些知识去设计和制备生物制品和生物装置。

The continuing growth of bio-related industries (pharmaceutical, health care, bio-products) has resulted in an increasing demand for chemical engineers specialized in both engineering and life sciences. The program integrates the fundamental and applied aspects of life sciences (biology, biochemistry, cell biology and pharmaceutical engineering) with fundamental concepts of chemical engineering. Students will learn to use this knowledge to design and manufacture bioproducts and biodevices.

化学及环境工程学工学士
BEng in Chemical and Environmental Engineering

本课程注重将原材料转变为有用产品而不产生排放和废料的过程。所有公司在处理这类过程时，都需要具有基础化工知识的环境工程师来设计、控制、管理和操作环境处理设备。这一双主修结合的学位令学生理解各种工业过程，以及认识在何处实现环境控制的度量，从而带给社区更好的生活空间。

This program emphasizes processes that turn raw materials into valuable products without producing effluents and wastes. All companies handling such processes need environmental engineers with a basic knowledge of chemical engineering to design, control, manage and operate environmental treatment facilities. This combined degree enables students to understand various industrial processes and realize where environmental control measures can be implemented, thus making the community a better place to live in.

土木工程学工学士
BEng in Civil Engineering

土木工程学关注的是各种结构的规划、设计、建筑、维护和管理，比如楼房、桥梁、道路、铁路、隧道、斜坡、机场、港口设施、固体废物处理以及垃圾堆填场、食水及污水处理厂、堤坝、水管、煤气输送等。简言之，土木工程学涉及到现代文明的一切基础设施。

Civil Engineering concerns the planning, design, construction, maintenance and management of various structures such as buildings, bridges, roads, railways, tunnels, slopes, airports, harbor facilities, solid waste treatment and landfills, water/sewage treatment plants, dams, water pipes, gas mains, etc. In short, Civil Engineering is about the infrastructure of modern civilization.

土木及环境工程学工学士
BEng in Civil and Environmental Engineering

本课程提供广泛的工程训练，其重点则放在食水及废水工程领域、固体及有害废物的管理，以及空气/噪音污染的控制等方面。在全世界，环境质量都是公众关注的焦点。随着香港经济的快速发展，越来越多的资源用于改善和管理本地环境。因此，对受过良好训练的环境工程师有很大的需求。

The Civil & Environmental Engineering program provides broad engineering training with an emphasis on the areas of water and wastewater engineering, solid and hazardous waste management, and air/noise pollution control. As environmental quality is a major public concern all over the world, along with the rapid economic development in Hong Kong, more and more resources will be committed to improving and managing our environment. Thus, there will be a great need for properly trained environmental engineers.

计算机工程学工学士
BEng in Computer Engineering

计算机工程学着重计算机系统的设计和完成，由嵌入微处理器、笔记本电脑、台式电脑到超级计算机，以及计算机与其它系统组合，以对应真实世界应用的挑战。本学科将计算机科学与电子工程学结合起来，并且在硬件和软件技能两方面给予学生均衡的训练。由于集合了电子及计算机工程学系两个学系的人力资源和实验室设备的优势，这是一门结合得很好的双主修课程。

Computer Engineering focuses on the design and implementation of computer systems, from embedded microprocessors, notebook/desktop computers to supercomputers, as well as how they are integrated with other systems to meet the challenges of real-world applications. It bridges the gap between computer science and electronic engineering, and offer students a balanced training on both hardware and software skills, by taking full advantages of the human resources and laboratory facilities of both Electronic & Computer Engineering and Computer Science & Engineering departments. It's a well-integrated 2 in 1 program!

计算机科学工学士
BEng in Computer Science

计算机科学研究计算机在解决科学、工程和商业领域的重要问题中的应用。本学位课程提供计算机科学的所有核心领域的广泛教育，包括编程、数据结构及算法，操作系统和软件工程。学生可以选择学习计算机科学的各个不同的领域，比如数据库、数据挖掘、网络、嵌入系统、计算机绘图、图像处理、人工智能、机器学习、计算机视觉、计算机保安以及计算机科学理论。

Computer Science studies the application of computers in solving important problems in scientific, engineering and commercial domains. BEng in Computer Science provides a broad education in all core areas of Computer Science, which includes programming, data structures and algorithms, operating systems and software engineering. Students can then choose to learn diverse areas of computer science, such as databases and data mining, networking, embedded systems, computer graphics, image processing, artificial intelligence, machine learning, computer vision, computer security, and theoretical computer science.

电子工程学工学士
BEng in Electronic Engineering

学位课程涵盖了现代技术的广泛层面，包括生物医学电子学、线路设计、通讯与网络、计算机工程、微电子、光电科学、信号与信息过程、系统及自动化。这些领域对于我们日益成长的信息社会至关重要，掌握这些技术将开拓巨大的就业机会。

The program covers a wide scope of modern technologies including biomedical electronics, circuit design, communications and networks, computer engineering, microelectronics, photonics and optics, signals and information processing, and systems and automation. These areas are critical to the growth of our information-based society and mastering these technologies should open up vast career opportunities.
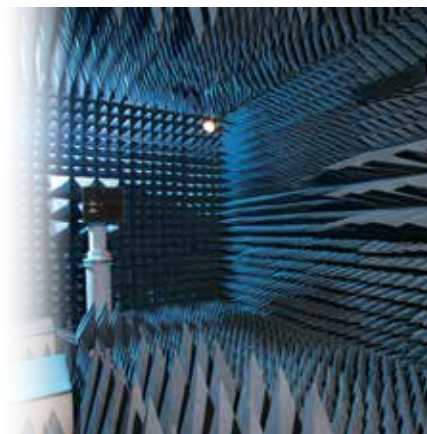
工业工程及工程管理学工学士
BEng in Industrial Engineering and Engineering Management

工业工程是发展科学和定量管理的一门学科。本学位课程强调科学的以及系统的发展，并且提交高质量的产品和服务，包括产品设计及产品线管理、服务营运管理、质量管理、科技及创新管理等。课程还会提供一个产品设计及营销选项，为学生提供一门将工程设计技能与商业营销策略相结合的独特的教育课程。

Industrial Engineering is the discipline of developing scientific and quantitative approaches to management. The Industrial Engineering and Engineering Management program focuses on the scientific and systematic development and delivery of quality products and services, including product design & product line management, service operations management, quality management, management of technology & innovations, etc. The program offers a Product Design and Marketing option, which provides students with a unique integrated education of engineering design technologies and business marketing strategies.

物流管理及工程学工学士
BEng in Logistics Management and Engineering

本学位课程着重科学与经济的方法学，以增强全球企业在管理物流运作方面的能力与竞争力。课程涵盖全球供应链的规划与管理、物流网络设计、货物运输的营运、收益管理等。由工程及商业的专业知识装备起来的本课程毕业生，将成为发挥作用的物流管理者，他们将回应全球经济不断变化的需求。

The Logistics Management and Engineering program focuses on the scientific and economic methodologies to enhance capabilities and competitiveness of global enterprises in managing their logistics functions. It covers global supply chain planning & management, logistics network design, freight transportation operations, revenue management, etc. Graduates of the program will be equipped with engineering and business expertise to become effective logistics managers who can answer the ever-changing needs of the global economy.

航空航天工程学工学士
BEng in Aerospace Engineering

在2012-13年度工学院开设的航空工程副修课程相当成功，有见及此，学院在2015-16年度进一步推出航空航天工程学这门新主修课程。航空航天工程学是科大专注的旗舰学科领域之一，也是工学院在教学科研领域中的一个新发展的战略要地。此主修课程旨在令学生对于空气动力学、结构、飞行器动力学及控制、推进器、气动弹性以及具有较强理论基础的跨学科设计等知识有必要的了解，令他们能在航空航天领域以及相关工程领域发展。

With the success of the Aeronautical Engineering Minor that was introduced in 2012-13, the School of Engineering launched a new major in Aerospace Engineering in 2015-16. Aerospace is one of the flagship disciplinary areas the university is focusing on and an emerging strategic area in education and research in the School. The Program is aimed equipping graduates with necessary understanding of the essential disciplines of aerodynamics, structures, vehicle dynamics and control, propulsion, aeroelasticity and interdisciplinary design with a strong theoretical base which is well suited for careers in aerospace and related engineering fields.

机械工程学工学士
BEng in Mechanical Engineering

本系的本科学位课程按三个阶段建构。第一阶段集中于机械工程学的基础知识；第二阶段将工程科学与实验室工作相结合，学生将接触世界一流的工具与设备；第三阶段包含选修课，将在特定的领域为学生提供足够的知识深度，包括（1）楼宇服务，能源及环境工程；（2）机电一体化，设计与制造；以及（3）结构、材料和可靠性工程。

The undergraduate program is structured in three stages. The first stage concentrates on the fundamentals of mechanical engineering. The second stage integrates engineering sciences with laboratory work and exposes students to state-of-the-art tools and equipment. The third stage comprises electives that provide students with sufficient depth in one of the following areas of specialization: (i) Building Services, Energy and Environmental Engineering, (ii) Mechatronics, Design and Manufacturing, and (iii) Structure, Materials and Reliability Engineering.

计算机科学理学士
BSc in Computer Science

本课程为有志于获得双主修学士学位的学生特别设计。学生需要声明修读另一门理学士课程（例如，选一般数学为第二主修课程）。修读此课程的学生将获得细心的指导，以便根据他们的特殊兴趣与需要，为他们构筑并遵从专设的学习计划。此课程将成为达到他们专业目标的平台。

BSc in Computer Science is a special program designed for students who wish to graduate with a double-major BSc degree. Students are required to declare study in another BSc program (e.g. second major in General Mathematics). Students who join the program are carefully supervised in order to build and follow a study plan tailored to their specific interests and needs, and serve as a strong platform to achieve their career goals.

入学要求

所有参加2017年全国统一高考的学生均可以提交申请。6月底至7月初，初选入围的学生将获邀请进行面试，面试以英语进行。

仅有

- 表现出卓越学习能力，以及
- 面试表现令人满意

的申请者才能获得录取。

详情请参阅内地本科招生网页

https://join.ust.hk/cn/

Admission Requirements

All candidates who are going to sit for the Joint Entrance Exam in 2017 are eligible to apply. Shortlisted Students will be invited to interview in late June to early July, which will be conducted in English.

Successful candidates should be able to:
- demonstrate outstanding academic competence, and
- perform satisfactorily at the interview

More information can be found at HKUST undergraduate admission website

https://join.ust.hk/cn/

强化 整体学习经验

Enriching
Total Learning
Experience

本地、国内和国际的各种竞赛

学院强烈地鼓励工程学的学生参加包括竞赛在内的各种课外活动。这些活动令学生能应用他们的工程知识以及项目中创新的技术诀窍，对社会做出贡献。科技大学工学院学生参加的比赛有机器人竞赛、水底机器人大赛、智能车竞赛，还包括「维修站团队比赛」（Pit Crew Challenge）及「「新能源、新世代」（New Energy New Generation）在内的太阳能汽车比赛等。透过参与不同种类的比赛，学生不但能够提升他们与人沟通和相处的技巧，更能启发创意，同时锻炼他们解决问题和管理的技能，帮助他们开展未来的事业。

Local, National, and International Competitions

Engineering students are strongly encouraged to take part in a variety of activities outside the regular curriculum including competitions. Such contests enable students to apply their engineering knowledge and technology knowhow innovatively in projects contributing to the society. Competitions participated by HKUST Engineering students include Robocon, Underwater Robot, Smart Car and Solar Car competitions such as "Pit Crew Challenge" and "New Energy New Generation". By participating in different kind of competitions, not only can students enhance their communication and interpersonal skills, they can also sharpen their creativity, problem-solving, and management skills which will better prepare them for their future careers.

姚昕婕 Xinjie YAO

计算机工程学士及工商管理学士
2016年香港科技大学机器人队参与者
BEng (Computer Engineering) & BBA (General Business Management)
Participated in HKUST Robotics team 2016

"机器人队为我的大学第一年生活创造了无比珍贵的记忆与无限的喜悦。作为一个先前没有任何经验的硬件工程师，我需要快速地学习并且应用新的知识和技能来开发水下机器人的整个硬件系统。在此过程中，我不仅走出了课堂，获取了新的知识与技能，强化了解决现实问题的能力；并且与一群值得信赖的队友们共同备赛，学会了如何在多元文化背景下进行团队合作，锻炼了时间管理和与人沟通能力。除此之外，我有幸能够从专业角度来审视机器人的构建过程，从而让我对这方面有了更浓厚的兴趣。"

"Joining the Robotics team is an exciting and invaluable experience that would mark the highlight of my first year in university. As a new hardware developer of the team, I need to learn the technical knowledge and skills quickly to develop a hardware system for an underwater robot (ROV). Through the development process, I acquired the skills and knowledge that was not covered in the classroom and my problem solving skills are enhanced significantly. I was able to share a lot of irreplaceable precious moments and memories with the team members with multi-cultural backgrounds and learn the essence of teamwork, time management and inter-personal communication skills. At the same time, my participation in the Robotics team allowed me to explore the field of robot development at a very advanced level and this has definitely facilitated the growth of my interest in underwater robotics."

本科生研究计划 (UROP)

本计划是极具香港科技大学特色的项目，旨在为本科学生提供独特的机会，令他们在本科阶段就可以在教授的辅导和指引下积极地参与学术研究。此项目帮助学生在他们感兴趣的领域拓展更加广泛及深入的理解。参加此计划的学生能获得参与科研的亲身体验，掌握先进的设备，以及与顶尖研究人员一同工作的机会。获挑选的学生也可以参加海外的本科生研究计划（UROP）——国际本科生研究计划（IROP），学生可以透过计划在麻省理工、剑桥等学府开展研究。

Undergraduate Research Opportunities Program (UROP)

Undergraduate Research Opportunities Program (UROP) is one of HKUST's signature programs designed to provide a unique opportunity for undergraduate students to actively engage in academic research at undergraduate level under the guidance and supervision of professors. The program helps students to develop a broad and insightful perspective of their areas of interest. Students participate in this program can have a taste of hands-on research, access to cutting-edge facilities, and the chance to work alongside top researchers. Selected students may also participate in International Research Opportunities Program (IROP) --- an overseas version of UROP --- through which students can carry out research at MIT and Cambridge etc.
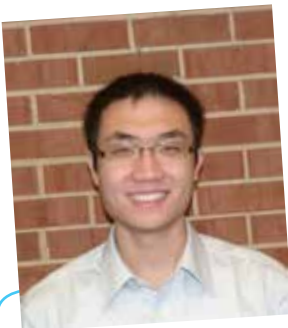
翟潇梦 Xiaomeng Zhai

2012年机械工程学工学士
现于佐治亚理工学院修读航空航天工程学博士学位
2011-12年本科生研究计划参加者
2012 BEng (Mechanical Engineering)
Now pursuing PhD in Georgia Institute of Technology
Participated in UROP 2011-12

"我的本科研究计划的经历，让我得以一瞥研究生活，也坚定了我继续读研究生院的决心。得益于在美国伊利诺伊大学香槟分校当交换生时修读过的《天体力学》课程，我对这个研究项目上手很快。然而，随着进展的深入，面对那些比起课程讲授远为复杂的模型，我终于理解了奇思妙想对研究很重要的原因。只有努力、投入与坚持不懈才能让探索与研究走得更远。这一认识对我如今的博士研究，也非常有指导意义。我也很感谢和怀念与导师们每两周一次的深入研讨。这些讨论让我了解教授的思维方式与处理问题的方法，不仅拓宽了我的思路，更能对比出自己的不足，指明需要提高和努力的方向。从本科生研究计划中，我收获了知识、乐趣与研究的理念，也赢得了申请研究生院的推荐信。"

My UROP experience gave me a glimpse of research life, and it reinforced my determination in attending graduate school. Thanks to an orbital mechanics course taken during my exchange at University of Illinois at Urbana Champaign, I was able to jump-start the project. Faced with more sophisticated models than those in class, I got to appreciate that research takes ingenuity, but more importantly, time, effort and perseverance. Now this appreciation is still guiding me through my Ph.D studies. I was also grateful for the bi-weekly in-depth discussions with the project advisors. These sessions not only allowed me to learn the mindset and perspectives from successful scholars and broaden my horizon, but also pointed out my shortcomings for me to make up. Out of this UROP, I gained knowledge, joys and research philosophies, and I also won their reference letters for my graduate school application.

普林斯顿大学、哈佛大学本科生暑期研究计划

除了本科生研究计划外，科大工学院分别与普林斯顿大学和哈佛大学合作提供以研究为基础的暑期研究项目。计划专门为工学院本科生而设，每项历时大约8星期。参与普林斯顿研究项目的工学院学生会与普林斯顿大学教授一道在专门设计的课题领域工作。而参与哈佛研究项目的工学院学生则与哈佛大学学生组成一个团队，并在哈佛和科大每地逗留4个星期，致力完成一个共同研究项目。

通过在国外的生活以及在多元化环境中与人们的互动，学生们不仅可从事国际水平的学术研究，而且也可获得宝贵的文化熏陶。此项目为工程学的学生提供高水平的国际研究经验、国际视野以及全方位的教育。

Princeton and Harvard UG Summer Research Programs

In addition to UROP, the School of Engineering offers research-based summer program with Princeton University and Harvard University. Exclusively for engineering undergraduates, the programs last for around 8 weeks each. Under the Princeton Program, engineering students are engaged in research with Princeton's faculty members on designated research projects whereas for the Harvard Program, HKUST students team up with Harvard students, and spend 4 weeks at Harvard and HKUST respectively.

Students not only conduct academic research in an international setting, but also gain invaluable cultural exposure through staying abroad and interacting with people with diverse backgrounds. The Programs provide engineering students with an international research experience of the highest standard, a global outlook, and an all-round education.
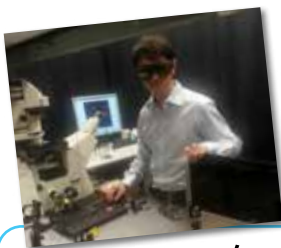
蔡亚雄 Yaxiong Cai

机械工程学工学士
2013年夏季，普林斯顿大学本科生研究交换计划参加者
BEng (Mechanical Engineering)
Participated in Undergraduate Research Exchange Program at Princeton University , Summer 2013

"在普林斯顿大学参加的涵盖面广泛的科研，以及接触到的才华出众的学人都令我赞叹不已。在那里，我的眼界得以拓宽，对未来的展望亦注入灵感。我的研究工作，是要证明光学束缚技术能够观察比常规光学显微镜所能观察的更细微的全视野图像。此研究为实时观察五颜六色的病毒和生物分子打开了一扇新的大门。这项研究本身很酷，然而我更为欣赏的是学习的过程和我所经历的研究环境。这是我第一次对激光研究产生兴趣。香港科技大学与普林斯顿大学的合作研究计划并不仅仅是一项研究项目，它也是一个与国际同人建立友谊和体验不同文化的机会。总而言之，我在普林斯顿大学的体验是值得回忆并动人心弦的。如果没有香港科技大学工学院和普林斯顿大学Keller中心的支持，这一切的收获与快乐都不可能存在。"

"I am totally amazed by the extensive research I conducted and talented people I met in Princeton, where my horizons is broadened and my vision is inspired. In my work, we demonstrate a new method, named Optical Trap Assisted Nanoimaging, which can observe full-field images smaller than the minimum feature size that conventional optical microscopes can observe. This work can open a new door to observe colorful viruses and biomolecules in real time. The research itself is cool, but what I appreciate more is the learning process and productive environment I experienced. It was the first time that I had interacted with laser research. HKUST-Princeton research program is more than just a research program. It is also an opportunity to build friendship with international characters and experience a different culture. All in all, my experience in Princeton is memorable and exciting. And all the joyousness cannot exist without the support of HKUST School of Engineering and Keller Center of Princeton. "

本科生主导体验式学习计划（USEL）

创意是21世纪大学毕业生的重要素质。为了培养学生的创意，工学院透过「本科生主导体验式学习计划」（USEL），向所有本科生提供由学生自行开展的实习机会。在这项计划下，工学院鼓励学生根据自己的兴趣自主开展项目，并在教学人员的指导下把项目完成。工学院设立了一所24小时开放的体验学习实验室，方便学生从事研究。体验学习实验室配备适用于广泛学科的不同设施及器材，为学生提供实际的平台，让他们实现梦想。

Undergraduate Student-initiated Experiential Learning Program (USEL)

Creativity is an important attribute of university graduates of the 21st Century. To nurture students' creativity, the School of Engineering provides student-driven practicum opportunities to all UG students through its Undergraduate Student-initiated Experiential Learning (USEL) Program. Through this program, students are encouraged to initiate projects of their interest and carry it out under guidance of faculty members. An experiential learning lab that allows students 24-hour access has been established by the School of Engineering to facilitate students' work. Furnished with facilities and equipment applicable to a wide range of disciplines, the experiential learning lab provides the physical platform where students can realise their dreams.

企业实习

工学院将企业实习视为学生教育的重要辅助部分，因此在2012年设立了业界交流及实习中心（IEI），协助学生们透过企业实习尽早吸取专业工作的经验。业界交流及实习中心扮演着企业界与工学院之间正式交流渠道的角色，凭藉各种企业实习的机会，工学院让学生得以在选择事业时找到自己的兴趣所在，同时帮助他们早于科大就读期间就已经为自己的事业前景作好准备。

Internship

Seeing internship an important complement to a student's education, the School of Engineering established the Center for Industry Engagement and Internship (IEI) in 2012 to cultivate its students' early exposure to professional work experience via internship. The Center serves as the official interface between the industry and the School. Through internships, we facilitate our students to identify their passion and interest in career choices and to help them build up their career path early while still in university.

朋辈辅导计划

"教学相长"

传授知识是其中一种最有效的学习方式。透过设计周详的训练工作坊,高年级工程学生将会接受指导,学习怎样向一年级新生提供朋辈辅导和支援。朋辈辅导计划不但为一年级学生提供了融入大学生活所需的一切支援,更重要的是能够让朋辈导师总结自身经验,并转化成建议和指导,传授给学弟妹。

Peer Mentoring Program

"Learning to Teach, Teaching to Learn"

An effective way to learn is to teach. Through well designed training workshops, senior year engineering students are coached to provide peer mentoring support to freshmen. The Peer Mentoring Program of the School not only provides the much needed support to freshmen in their transition to university life, but more importantly enables the mentors themselves to reflect on their experience which they can convert to useful advice and guidance to their successors.

工学院学生大使计划

工学院学生大使计划是一项精英计划，令学生代表工学院对预科学生和公众推广工程学。此计划为学生提供人生的一个机会，令他们可以发展并成为将来的领袖。在整个过程中，学生大使能够从合资格的训练导师那里学到不同的软技能，比如对话、推介、领导才能、组织活动和管理时间等。

学生大使将获得充足的机会参与各种外展活动，以推广工学院的成长和拓展。他们也将会见各类人士，比如海外代表团、本地工业合作伙伴、中学生等。此强化项目给予工学院学生转型的经验，以成为有多方面能力的专业人士。

Engineering Student Ambassador Program

The Engineering Student Ambassador Program is an elite program for students to represent the School and to promote engineering to the prospective students and the general public. It provides an opportunity of a life time for students to develop and become future leaders. Throughout the scheme, ambassadors would be able to acquire different soft skills like communication and presentation, leadership, event organizational and time management skills from well-qualified trainers.

Ambassadors are given ample opportunities to participate in various outreaching activities in promoting the growth and expansions of the School. They would also meet many diverse individuals such as overseas delegates, local industry partners, secondary school students, etc. This enrichment program offers engineering students a transformational experience to become multi-faceted professionals.

Being an Engineering graduate

成为工程学毕业生

科大工学院的毕业生获得雇主广泛好评。他们在顶尖的公司和机构里就职，比如，国泰航空公司、国际速递公司（DHL）、通用电气金融服务公司（GE Capital）、高盛集团、谷歌（Google）、汇丰集团、IBM、美林公司、微软、摩根士丹利、摩托罗拉（Motorola）、港铁公司、汤森路透（Thomson Reuters）、三星电子、雅虎等。获得经本地评审的学士学位或更高学位的全日制非本地毕业生可以申请留港工作。

具有极强创业精神的毕业生，亦可以通过创办公司来发挥自己的分析技能和多方面的才能。

对科研和深造兴趣浓厚的学生，他们大都受到全球顶级教育机构的欢迎，比如到英国剑桥大学、美国普林斯顿大学、加州大学洛杉矶分校、哥伦比亚大学、斯坦福大学等继续深造。

School of Engineering graduates are highly regarded by employers. They work for leading companies and organizations such as Cathay Pacific, DHL, GE Capital, Goldman Sachs, Google, HSBC, IBM, Merrill Lynch, Microsoft, Morgan Stanley, Motorola, MTR Corporation, Thomson Reuters, Samsung, Yahoo, etc. Non-local graduates who have obtained a degree or higher qualification in a full-time and locally accredited program in Hong Kong may apply to stay and work in Hong Kong.

For those who are interested in research and further education, they are embraced by world's top academic institutions such as Cambridge, Princeton, UCLA, Columbia, Stanford, etc. for postgraduate studies.

The graduates with strong entrepreneurial spirit would apply their analytical skill and multi-faceted ability by setting up their own companies.

汪滔 Mr Frank Wang

2006年工学士〔电机及电子工程学〕，2011年哲学硕士〔电子及计算机工程学〕
大疆创新科技有限公司创办人兼行政总裁
2006 BEng (Electronic Engineering), 2011 Mphil (Electronic and Computer Engineering)
Founder and Chief Executive Officer, DJI Innovations

"科大为我提供了绝佳的机会，让我能够在课堂以外探索自己的兴趣，同时我也有幸遇到了一位愿意支持我、多年来给了我莫大帮助的教授。我在电子课程以及机器人竞赛（Robocon Competitions）中所学到的基础知识，让我在遥控飞行机器方面打下了扎实的根基。科技大学也让我明白到，发挥团队精神和自律不懈地追求完美，同样重要。
这些都证明科大除了课程内容扎实之外，也拥有出色的教授团队，能够无时无刻启发学生。他们全部都具备环球视野，有的具备出色的创业精神，有的则学问渊博，其中李教授对我影响最深，也给了我极大支持。由于我在这里得到难以忘怀的体验，我一直热衷于帮助科大吸引最优秀的工程学生，帮助科大的工学院成为全球最佳工学院。"

"HKUST provided me with excellent opportunities to explore my interests outside the classroom, and I also found a professor willing to support me in ways that have helped me immensely over the years. Learning the fundamentals in my electronics courses and taking part in Robocon Competitions helped me build a solid foundation in remote-controlled flying machines. HKUST taught me the importance of being a good team player and a disciplined perfectionist.

This just shows that in addition to its solid curriculum, HKUST has excellent professors who always find ways to inspire. They have a global vision, and while some have a great entrepreneurial spirit, others are very scholarly. Professor Li influenced me the most and supported me greatly. Because of my unforgettable experience here, I am always eager to help attract the best engineering students to HKUST and assist the university's engineering school to become the best in the world."

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孙一晨 Ms Yichen Sun

2011年土木及结构工程学工学士
现于麻省理工学院修读硕士课程
2011 BEng (Civil and Structural Engineering)
Now pursuing graduate study in MIT

"香港科技大学比起亚洲的其它排名前列的大学来，有更大的优势。这里有正在从事世界前列研究的顶尖的教研人员，他们非常优秀而且乐于分享；这里有大量实习机会，本科生研究计划，以及交换机会。由此，学生能够尽可能早的构筑起顺利发展的道路。在科大，我们享有最宽松的环境，不同背景的人互相交往，贡献自己的想法，收获智慧的果实。

在香港科技大学，我改变了行事的方法，那是我在原先的经验中从未有过的。我个人从科大提供的大量机会中得益：附加课程的活动，志愿服务的机会，实习以及海外交流等。此外，科大的课堂经验无疑十分重要，它令我坚信不疑，我们的教学大纲与世界顶级大学同样卓越。我也学会敞开胸襟、保持活力，并且正面看待事物。选择在香港科技大学读书是我作出的最佳选择。"

"HKUST, possesses great comparative advantage than other first-ranked institutions in Asia. There are top faculty members who are doing state-of-art research, and they are nice and willing to share; there are plenty of internship openings, undergraduate research projects, and exchange opportunities, thanks to which students could figure out a well-travelled path as early as possible. Here at HKUST, we have an extremely porous environment where people of different background are mingling with each other, contributing thoughts and harvesting intelligent grains.

At HKUST, I have chances to do things that have no precedence at all in my prior experience. I personally have benefitted from a lot of HKUST-granted opportunities: extra-curricular activities, volunteering opportunities, internship, and oversea exchange, etc. In addition to the undeniable importance of classroom experience at HKUST, where I have built up my confidence that our curriculum is as good as any top school in the world, I have also learnt to stay open-minded, dynamic, and positive. Choosing to study at HKUST was one of the best choices I have ever made."

马方畅 Mr Fangchang Ma

2013年计算机工程学工学士
现于麻省理工学院修读博士学位
2013 BEng (Computer Engineering)
Now pursing PhD in Massachusetts Institute of Technology (MIT)

"回想自己在香港科技大学的四年，现在仍然会激动不已。作为一名本科生，我已经有机会和世界上一流的教授一起进行学术研究。我在UROP（本科生研究计划）的导师的指点下尝试了拓展PageRank（谷歌的核心算法）的应用范围，也在毕业设计导师的引导下进行了机器视觉方向的研究。我加入了香港科技大学机器人队，并在两年的时间中对移动机器人相关的算法、硬件、机械原理进行了学习。此外，我参与了工学院的交换生计划，并在宾夕法尼亚大学（美国常青藤大学之一）进行了一个学期的学习。这些香港科技大学所独有的机会，帮助了我最终被麻省理工学院录取，使我能在机器人领域进行更深入的学习和研究。

时至今日，我仍然很庆幸当时做出了正确的选择，在香港科技大学完成了本科阶段的学习。如果你也希望有一个精彩、刺激、充满挑战的四年，香港科技大学将会是一个上佳的选择。"

"The four years at UST were amazing. I engaged in research about PageRank (the core of Google's search engine) and computer vision (one of the hottest topics in computer science) with some of the best professors in the field. I joined the HKUST Robotics team, learnt everything from scratch about algorithms, circuits, mechanics. I worked with my teammates every days and nights to construct and test the robots that we designed. I also participated in an exchange program to University of Pennsylvania, one of the Ivy League universities. These are opportunities that I had never expected, and there are so many more that I wish I had the time to explore before my graduation. These experiences offered by HKUST are also part of the reason why I am admitted to MIT for graduate study.

Choosing HKUST is one of the best decisions I have made so far. If you are looking for both work and fun, this is the place you will love."

"学生的成就是我们的骄傲!
Our students' achievements are our rewards!"