

# HKUST PURSUES EXCELLENCE IN ENGINEERING RESEARCH AND POSTGRADUATE EDUCATION

### WHY HKUST ENGINEERING?

2ND Top 50 universities under 50 by Quacquarelli Symonds (QS) University Rankings 2014

> TH Engineering School in Greater China Academic Rankings of World Universities (ARWU) by Shanghai Jiao Tong University 2014

> TH in the world's top 50 universities for Engineering and Technology by Quacquarelli Symonds (QS) World University Rankings 2014

> > ST in Engineering and Technology by Times Higher Education (THE) World University Rankings 2014-2015

#### World Class Research

- A dynamic, international university with state-of-the-art research facilities and infrastructure
- World class researchers and academics inspiring innovation 

  and outstanding research outputs

#### Commitment in Education

- Cutting edge research by internationally renowned professors
- · Quality education to nurture future scientists and engineers
- Rich opportunity for employment and professional career

### Overview

#### World's Renowned Technological University - Our Miracle Continues

Being a young university with over 20 years of history, The Hong Kong University of Science and Technology (HKUST) is the only Hong Kong institution ranked always in the world's top 30 technological universities since QS started surveys in 2005. HKUST is also ranked the 4th in the World's Top 100 Universities under 50 by THE Survey 2014.

The School of Engineering (SENG) is the largest of the 5 Schools at HKUST. It comprises 6 departments:

- Chemical and Biomolecular Engineering (CBME)
- Civil and Environmental Engineering (CIVL)
- Computer Science and Engineering (CSE)
- Electronic and Computer Engineering (ECE)
- Industrial Engineering and Logistics Management (IELM)
- Mechanical and Aerospace Engineering (MAE)

### World-class Research

HKUST is one of the most research intensive universities in Asia, where students are nurtured for new discoveries and technological inventions through rigorous research training. In the Research Assessment Exercise 2014 of the University Grants Committee (UGC) of the Hong Kong Government, HKUST attained the highest proportion of internationally excellent research work, demonstrating that the university has achieved internationally excellent levels in our research areas.

Over the past decades, our engineering faculty members made significant discoveries in outting-edge research and received major national and international honors, including the State Natural Science Award conferred by the State Council of the People's Republic of China, and IEEE (Institute of Electrical and Electronics Engineers) Marconi Prize Paper Award, to name a few. Their achievements have been an important contribution to the social and economic development of Hong Kong and its transition to a knowledge-based society.

#### Joint Collaborations

To expand research and learning opportunities, the School collaborates with close to 60 leading institutions in different countries around the world, such as Massachusetts Institute of Technology and Princeton in the U.S., Ecole Polytechnique Federale de Lausanne in Switzerland, Ecole Nationale Superieure des Mines de Saint-Etienne in France, University of Zaragoza in Spain, University of Toronto in Canada, University of Western Australia, Tsinghua University in China, Korean Advanced Institute of Science and Technology in Korea, and University of Tokyo in Japan. In the near future, it is anticipated that our collaborating partners will be extended to University of Waterloo in Canada, and Politecnico di Milano in Italy, etc. Such collaborations open up avenues for students to gain insight into different research team cultures and perspectives.



HKUST and the University of Toronto Sign Agreement for Academic Cooperation

### Research Postgraduate Studies in Engineering

#### Research Postgraduate Degree Programs

HKUST School of Engineering offers programs leading to the Master of Philosophy (MPhil) and Doctor of Philosophy (PhD) in the following disciplines and interdisciplinary areas:

#### Broad Range of Disciplines

Chemical and Biomolecular Engineering Civil Engineering Computer Science and Engineering Electronic and Computer Engineering Industrial Engineering and Logistics Management Mechanical Engineering

#### Interdisciplinary Programs and High Impact Areas

Bioengineering Environmental Engineering Nanotechnology Energy Technology Technology Leadership and Entrepreneurship (MPhil only)

At HKUST School of Engineering, students entering with a bachelor's degree can complete the PhD degree without having to take a master's degree. Both MPhil and PhD programs are research-based degree programs which require a combination of **minor coursework** and a **major research thesis**. The normative duration of PhD program is **3 years** if a student has a relevant research master's degree, or **4 years** if a student enters with a bachelor's degree.



#### Overseas Research and Internship Experience for HKUST Students

To further enhance our research postgraduate students' learning experience, the School of Engineering has been working in line with the university's missions to provide students with opportunities to conduct research at institutions overseas, or gain industrial experience in established companies at the

#### Postgraduate Studentship Awards

All qualified MPhil and PhD students will be awarded Postgraduate Studentship Awards worth not less than HK\$180,000 (~USD23,300) per year in 2015/16 which is more than sufficient to cover the tuition fee, currently at HK\$42,100 per year, and the living expenses.

#### **HKUST SENG PhD Fellowship Award**

their future careers.

The PhD Fellowship Award is established by HKUST School of Engineering for attracting high caliber PhD candidates and recognizing current PhD students with outstanding performance at HKUST. The awardee will be granted a scholarship equivalent to half or full payment of his/her annual tuition fee of the academic year.

forefront of their respective disciplines. It helps provide them with

exposure to a foreign culture and environment and widen their

circle of professional contacts, so as to better prepare them for



#### Hong Kong PhD Fellowship Scheme

Exceptionally qualified PhD applicants with excellent academic records may apply for the prestigious Hong Kong PhD Fellowship awarded by the Research Grants Council of Hong Kong. Successful candidates will be awarded HK\$240,000 (-USD 31,200), plus a travel allowance of HK\$10,000 (-USD1,300) per year, for three years.



The School of Engineering at HKUST has been most successful among any Hong Kong institutions in recruiting the highest numbers of Hong Kong PhD Fellowship awardees in the last 5 years in a row. SENG also receives a good representation of top-calibre international students round the globe, such as Africa, Brazil, Columbia, Czech Republic, Egypt, Germany, Greece, Hungary, India, Indonesia, Iran, Italy, Korea, Malaysia, Nigeria, Pakistan, Romania, Singapore, and Turkey, etc.

SENG PhD Research Excellence Award

#### English Language Admission Requirements

Applicants whose first language is not English, and whose bechelor's degree or equivalent qualification" was awarded by an institution where the medium of instruction was not English, are required to fulfill one of the following minimum English Language requirements:

- Test of English as a Foreign Language (TOEFL) a paper-based test score of no less than 550; or an internet-based test score of no less than 80; or
- International English Language Testing System (IELTS) an overall score of 6.0 with no sub-score lower than 5.5.
- Qualification with duration equivalent to a full-time bachelor's degree (i.e. at least 3 years).

#### International Internship Program for Visiting Students

Postgraduate students from institutions outside Hong Kong who wish to spend two to six months at School of Engineering to fulfill their directed research or internship assignment may apply for the International Internship Program. Each international intern will be admitted to an Engineering department, and they are required to take a special research project course but are not enrolled on any specific programs of the University. Each internship student may receive a stipend of up to HK\$10,000 (~USD1,300) per month to cover living cost.





The synergy between leadership, innovation, technology, engineering and business is more than unique. I am sure that this MPhil program offered by the HKUST could really shape me as both an all-round person and tuture professional. I think that Hong Kong is the ideal economic, social, and cultural contest to be immersed into. The city is facing a very important and extremely fast development, especially when it comes to technology.

#### Michele CALIARI

HEng Graduato from Politoenico di Milano, Italy Now studying the TLE Program, HKLIST



Pfor to joining HRUST SENG, I completed a bachelor and a master degree in Mechanical Engineering at the University of Bristol, UK. As a relatively young university, HRUST has exceeded many expectations and have been recognized worldwide for its research quality. HRUST provide resources to research students generously. The people I have worked with and the facility available for me accelerated my research progress. The School of Engineering is also very supportive of giving students wide exposures to the industry and other academic institutions around the world. With their support, I have been to Belling, Singapore and New York in the past 3 years for exchange programs and summits, where I was able to met Nobel prizewinners and C-suits executives from multinational corporations.

#### Belsy YUEN

BEng and MEng Creduato Irom University of Bristol, United Kingdom New studying in Department of MME, HMUST



I came to HKUST at first because it is the only University in Hong Kong that offers a degree in Chemical Engineering. The multidisciplinary approach here has allowed me to learn so many things outside my core major, such as entrepreneurship and social science. We are encouraged to participate in various activities, competitions and conterences.

#### Len Foong KOONG

EEing Craduato from HIRUST, Hong Kong Now studying in Department of CBME, HKUST



### Expanding the Postgraduate Experience

To help postgraduates get to know peers outside their own research teams, more activities were organized within the School.

Overseas workshops at Massachusetts institute of Technology (MIT), the US



Womenisphere Emerging Leaders Global Summit 2014 at New York City





Google "Solve for X" Competition



Hackathon at HKUST in 2014

## Want to Know More?

Admission details and procedures: http://pg.ust.hk

More information on our MPhi/PhD programs: http://www.seng.ust.hk/pg/

HKPFS: http://www.ust.hk/hkpfs/or http://www.facebook.com/hkpfs.seng.hkust

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