CUHK 香港中文大學 | Electronic Engineering 電子工程學系
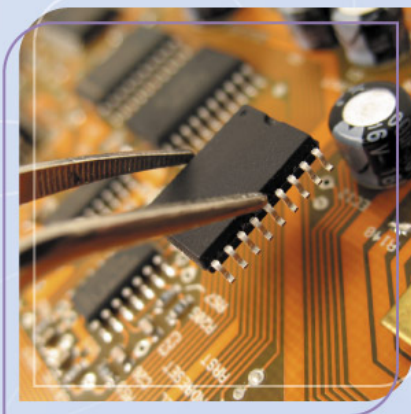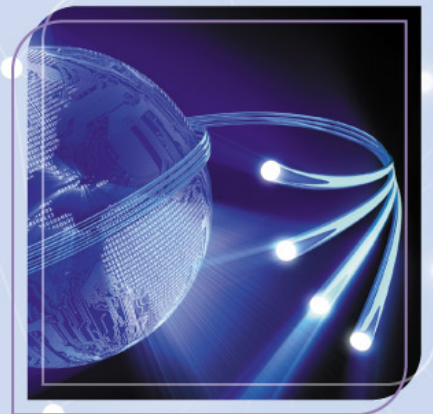
中大電子工程學
（CUHK ELEG）
聯招編號: JS4434

中大電子工程學系已於2018年起自行招生
Starting 2018, the CUHK EE programme admits students directly through

- JUPAS channel (JUPAS code: JS4434)
- Other admission channels (for applicants with other academic qualifications such as Associate Degree/Higher Diploma, IB, GCE, etc

No.1
in Hong Kong
Electronic Engineering Programmes [1,2]

No.28
in the world
Electronic Engineering Programmes [2]

The EE department was ranked number 1 in Hong Kong by the University Grants Committee 2014 Research Assessment Exercise (published in 2015)[1] and was ranked number 1 in Hong Kong and number 28 in the World by ShanghaiRanking's Global Ranking of Academic Subjects 2017[2].
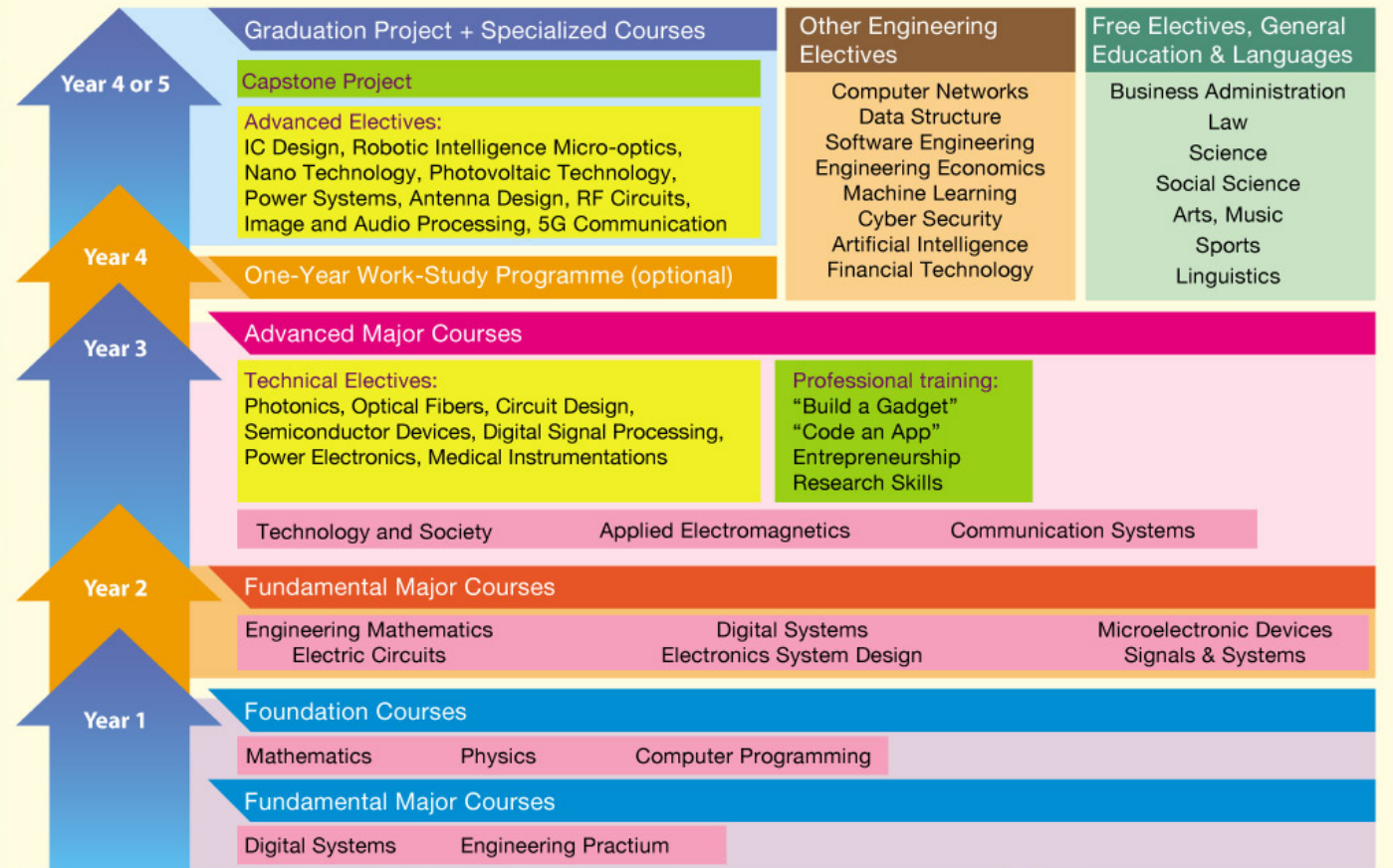
Build a Gadget, Code an App!

The Chinese University of Hong Kong
Department of Electronic Engineering
Electronic Engineering Programme
香港中文大學電子工程學系
電子工程學課程

Our mission is to educate future leaders in electronic engineering, to pursue knowledge and advance state-of-the-art electronics, including hardware, software and design with electronics as the core, from materials, devices, circuits to systems, and the applications of such technology to meet societal and individual needs. In both teaching and research, the Department is guided by the highest international standards.

Curriculum Structure 課程結構

The curriculum of Electronic Engineering is designed to enable students to plan their studies toward different career paths, including:
- Professional Engineering
- Entrepreneurship
- Research

Year 4 or 5

Graduation Project + Specialized Courses

Capstone Project

Advanced Electives:
IC Design, Robotic Intelligence Micro-optics, Nano Technology, Photovoltaic Technology, Power Systems, Antenna Design, RF Circuits, Image and Audio Processing, 5G Communication

Other Engineering Electives

Computer Networks
Data Structure
Software Engineering
Engineering Economics
Machine Learning
Cyber Security
Artificial Intelligence
Financial Technology

Free Electives, General Education & Languages

Business Administration
Law
Science
Social Science
Arts, Music
Sports
Linguistics

Year 4

One-Year Work-Study Programme (optional)

Year 3

Advanced Major Courses

Technical Electives:
Photonics, Optical Fibers, Circuit Design, Semiconductor Devices, Digital Signal Processing, Power Electronics, Medical Instrumentations

Professional training:
"Build a Gadget"
"Code an App"
Entrepreneurship
Research Skills

Technology and Society   Applied Electromagnetics   Communication Systems

Year 2

Fundamental Major Courses

Engineering Mathematics   Digital Systems   Microelectronic Devices
Electric Circuits   Electronics System Design   Signals & Systems

Year 1

Foundation Courses

Mathematics   Physics   Computer Programming

Fundamental Major Courses

Digital Systems   Engineering Practium

Work-Study Programme 工讀計劃

Our work-study programme was first introduced in 1975 in the belief that combining course work and industrial training would narrow the gap between academic education and practical engineering. After the third year of study, all students can participate in the work-study programme on a voluntary basis. Each participant is required to spend one year, as full-time employee, in a selected local electronic or IT company. The student will continue his/her final year of study after the internship. In recent years, there are on average 50% of our students who opted for work-study.

Participating companies include:
- HSBC (The Hong Kong and Shanghai Banking Corporation Ltd.)
- MTR (Mass Transit Railway)
- SmarTone Telecommunications Ltd.
- Asia Satellite Telecommunications Co. Ltd.
- VTech Telecommunications Ltd.
- ASM Assembly Automation Ltd.
- China Light & Power
- Hong Kong Science and Technology Park
- Fujitsu PC Asia Pacific
- Soloman Systech

Overseas Exchange Programme 海外交流計劃

EE students can gain international exposure by going for a short term or year long overseas exchange.
Some examples include: University of Illinois at Urbana-Champaign (USA), University of Toronto (Canada), Technical University of Denmark (Denmark), Karlsruhe Institute of Technology (Germany), KTH Royal Institute of Technology (Sweden), Osaka University (Japan).

EE students having an extraordinary learning experience in visiting technology giants and start-up companies in Silicon Valley, California during July 22 – August 2, 2019.

Mr. Leung Ho Man
(front center)
Received the prestigious Innovation and Technology Scholarship to support his one-year exchange programme to the University of Liverpool in the UK in 2019/20.
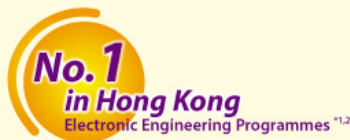
Innovation and Research 創新與科研

The 2014 Research Assessment Exercise (RAE 2014), which is an extensive independent peer-assessment of research performance across the university sector in Hong Kong, found that within the Electrical and Electronic Engineering discipline, The Chinese University of Hong Kong had more than twice the sector-wide average of 10% in the top category of 4* (world leading) research. The Electrical and Electronic Engineering Panel of RAE 2014 found that 21% of our research was in the 4* category, ahead of the second and third placed institutions which had 16% and 7%, respectively, in the 4* category.

The EE department was ranked number 1 in Hong Kong by the University Grants Committee 2014 Research Assessment Exercise (published in 2015)[1] and was ranked number 1 in Hong Kong and number 28 in the World by ShanghaiRanking's Global Ranking of Academic Subjects 2017[2].

Research Assessment Exercise 2014 Electrical and Electronic Engineering (World Leading Research)

Institution	Value
HKU	7
HKUST	16
PolyU	5
CUHK	21
CityU	4

No.1 in Hong Kong Electronic Engineering Programmes [*1,2]

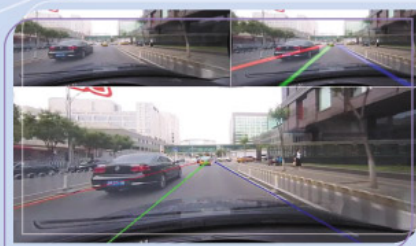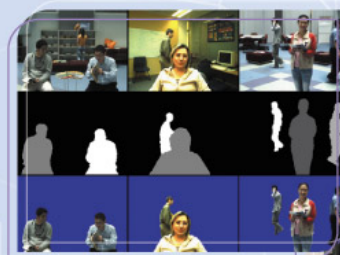**No.28 in the world** Electronic Engineering Programmes [*2]

Multimedia Technology 多媒體技術

Digital Entertainment: High Definition Digital TV, Computer Animation & Virtual Reality, Computer Generation of Voice & Music
數碼娛樂：高清晰度數碼電視；電腦動畫與虛擬真實；電腦合成人聲與音樂

Health & Medical: Digital Hearing Aids, Medical Image Processing
醫療保健：數碼助聽器；醫療圖像處理

Smart City: Autonomous Driving, Forensic Voice Verification, Intelligent Surveillance Vision
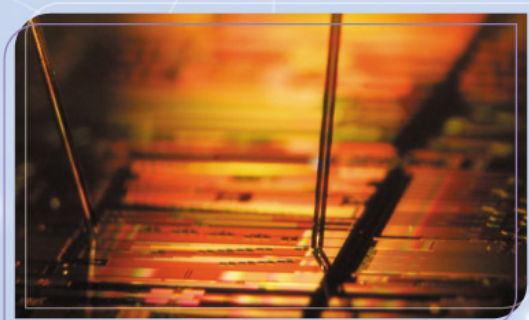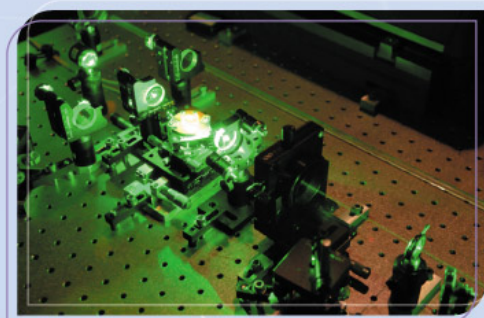智慧城市：自動駕駛；人聲識別與鑒真；智慧視覺保安監控

Optoelectronics & Optical Communication 光電子與光通信

Optic Communication: Cable TV, Broadband Internet
光通信技術：有線電視；寬頻網絡

Micro-optics: Optical Memory, LCD Projectors, CCD Camera
微光米學：光記憶體；液晶投影；CCD攝像機

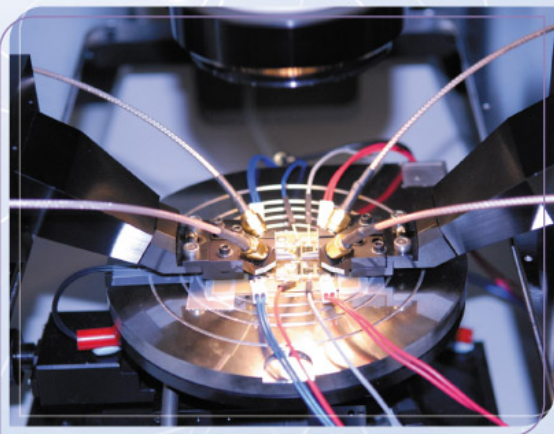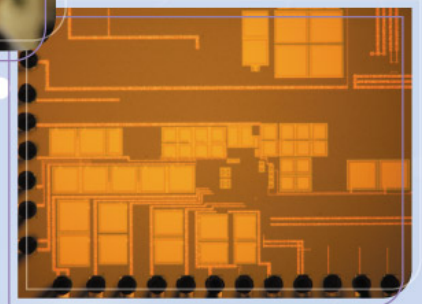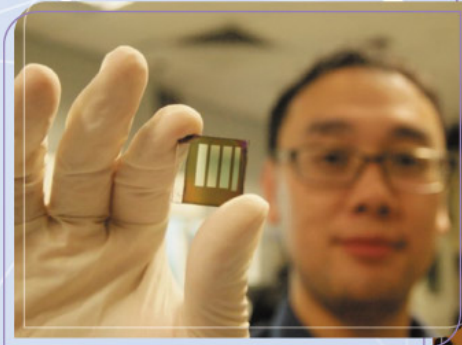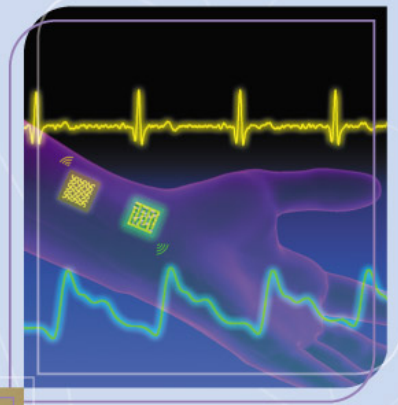Integrated Optics: High-Speed Fibre Optic Components
集成光學：高速光纖器件

Semiconductor Devices & Integrated Circuits
半導體器件與集成電路

Mixed Signal Integrated-Circuit Design: Mobile Phone
混合信號集成電路：流動電話

Smart Cards: Octopus, HKID Card
智能卡裝置：八達通；身份證

Nano-meter Semiconductor Devices and Materials
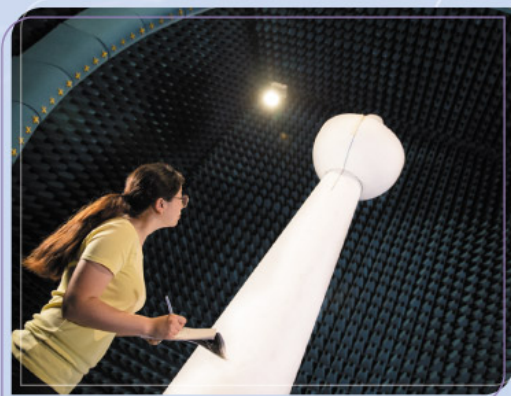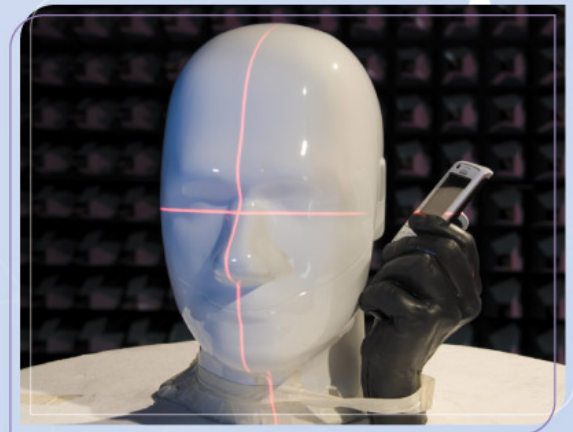納米半導體器件和材料

Wireless Technology
無線通信技術

Antenna, Bluetooth, WiFi
天線；藍牙技術；WiFi

Radio Frequency Identification (RFID) for Logistics
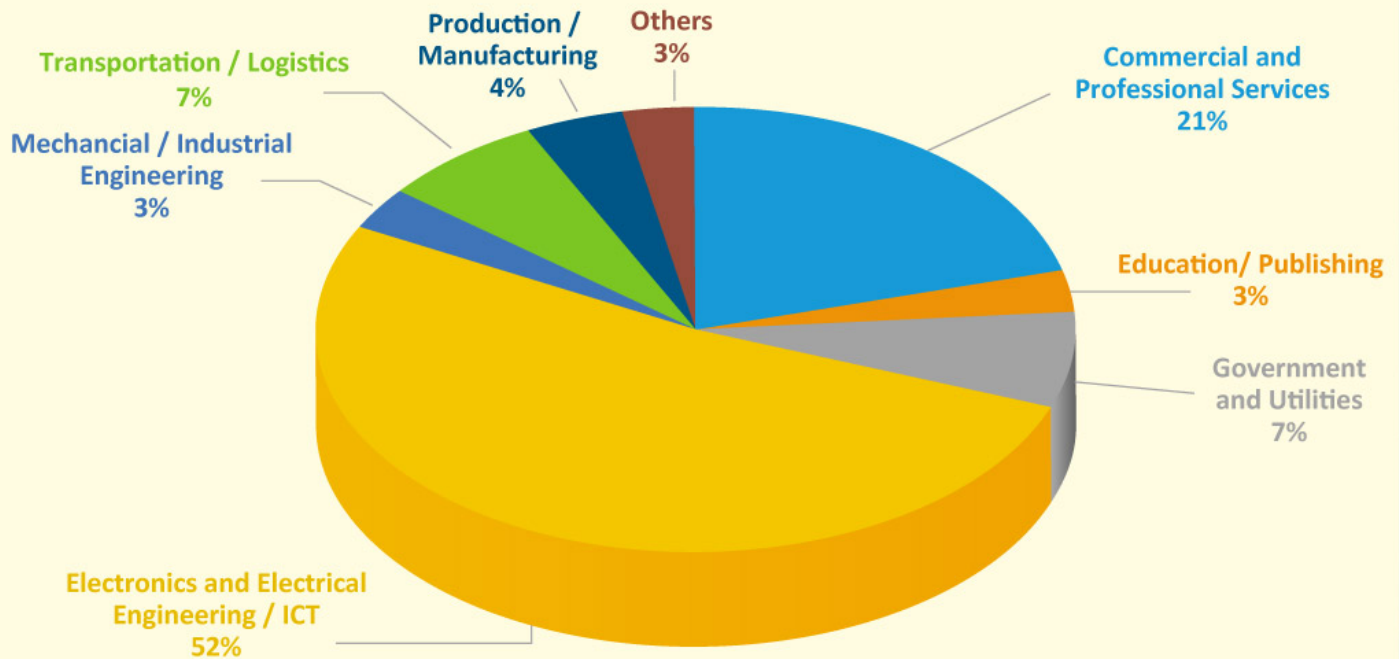應用射頻識別技術的物流系統

Wireless LAN
無線計算機聯網

Radio-frequency Radiation Measurement
無線電波幅射測量

Career Prospect 就業前景

A degree in Electronic Engineering provides a solid foundation to launch your career locally or globally with excellent prospects in a wide range of technological sectors, which include: telecommunications, broadcasting, automotive electronics, railway, electric power, semiconductor, medical equipment, government agencies (e.g. EMSD and ICAC), information technology, industrial manufacturing, and product design. Some of our graduates choose to pursue postgraduate studies in local or overseas institutions.

Employment of Electronic Engineering Graduates 2019

- Transportation / Logistics 7%
- Production / Manufacturing 4%
- Others 3%
- Mechancial / Industrial Engineering 3%
- Commercial and Professional Services 21%
- Education/ Publishing 3%
- Government and Utilities 7%
- Electronics and Electrical Engineering / ICT 52%

Professional Engineers
專業工程人士

OR Pui Ying, Jessica
Assistant Fuel Supply Manager
CLP 中電

POON Hiu Ching, Peggy
Assistant Electronics Engineer
機電工程署 EMSD

MUI Tin Wai
Graduate Engineer
MTR 港鐵

Entrepreneurs
企業家

TSANG Wai Wah, Martin
CEO of Hubject eRoaming Technology (Shanghai) Co., Ltd.
HUBJECT

CHEUNG Ka In, Debi
Founder of DocumentOnReady
DocumentOnReady

Researchers
研究學者

FOK Mei Po, Mable
Associate Professor
THE UNIVERSITY OF GEORGIA

CHOW Chi Wai
Professor
國立交通大學 National Chiao Tung University

WAI Hoi To
Assistant Professor at SEEM Department
香港中文大學 The Chinese University of Hong Kong

TSANG Sai Wing
Associate Professor
CityU 香港城市大學 City University of Hong Kong

Programme Entrance Requirements 課程入學要求

The JUPAS code of BEng in Electronic Engineering is JS4434. Admission is based on the Best 5 HKDSE subject results with subject weighting. For details of subject weighting, please refer to the table below.

Minimum Admission Requirement	Subject	Minimum Grade	Subject Weighting
Core Subjects	English Language	3	1
	Chinese Language	3	1
	Mathematics	3	1.5
	Liberal Studies	2	1
Two Elective Subjects	Any one science subject from the following: Biology/ Chemistry/ Combined Science/ Physics/ Information and Communication Technology/ Mathematics Extended Module I or II	3	1 (1.5 for Physics, M1/M2 if applicable)
	All other Elective Subjects		#

The Programme accepts any one subject as the second elective. The preferred subjects include Physics and Mathematics Extended Module 1 or 2. Subject weighting of 1.5 is given to the preferred subjects; and 1.0 is given to any other subjects. In addition to the requirements above, bonus points will be awarded to the 6th and 7th subjects, if any.

電子工程學課程
Electronic Engineering Programme

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