Starting 2018, the CUHK EE programme admits students directly through
- JUPAS channel (JUPAS code: JS434)
- 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

No. 28 in the world
Electronic Engineering Programmes

Build a Gadget, Code an App!

The Chinese University of Hong Kong
Department of Electronic Engineering
Electronic Engineering Programme

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 课程結構**

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

- Professional Engineering
- Entrepreneurship
- Research

### Graduation Project + Specialized Courses

**Year 4 or 5**
- 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

### Advanced Major Courses

**Year 3**
- 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

### Fundamental Major Courses

**Year 2**
- Engineering Mathematics
  - Electric Circuits

- Digital Systems
  - Electronics System Design

- Microelectronic Devices
  - Signals & Systems

### Foundation Courses

**Year 1**
- Mathematics
- Physics
- Computer Programming

- Digital Systems
- Engineering Practicum

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**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

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**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 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.
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 18% 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) and was ranked number 1 in Hong Kong and number 28 in the World by ShanghaiRanking’s Global Ranking of Academic Subjects 2017.

### Multimedia Technology

**Digital Entertainment:** High Definition Digital TV, Computer Animation & Virtual Reality, Computer Generation of Voice & Music

**Health & Medical:** Digital Hearing Aids, Medical Image Processing

**Smart City:** Autonomous Driving, Forensic Voice Verification, Intelligent Surveillance Vision

### Optoelectronics & Optical Communication

**Optic Communication:** Cable TV, Broadband Internet

**Micro-optics:** Optical Memory, LCD Projectors, CCD Camera

**Integrated Optics:** High-Speed Fibre Optic Components
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
無線電磁輻射測量
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 2018

- Electronics and Electrical Engineering / ICT: 44%
- Commercial and Professional Services: 20%
- Education / Publishing: 20%
- Mechanical / Industrial Engineering: 8%
- Government: 8%

Professional Engineers 專業工程人士

- OR Pui Ying, Jessica
  Assistant Fuel Supply Manager
- POON Hiu Ching, Peggy
  Assistant Electronics Engineer
- MUI Tin Wai
  Graduate Engineer

Entrepreneurs 企業家

- TSANG Wai Wah, Martin
  CEO of HUBJECT eRoaming Technology (Shanghai) Co., Ltd.
- CHEUNG Ka In, Debi
  Founder of DocumentOnReady

Researchers 研究學者

- FOK Mei Po, Mable
  Associate Professor
- CHOW Chi Wai
  Professor
- WAI Ho To
  Assistant Professor at SEEM Department
- TSANG Sai Wing
  Associate Professor
## Programme Entrance Requirements

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.

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

*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.*

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**電子工程學課程**
**Electronic Engineering Programme**

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Homepage: [http://www.ee.cuhk.edu.hk](http://www.ee.cuhk.edu.hk)