Our Majors

- Common first year
- Students choose a major after one year of study
- Majors offered:
  - BEng in Computer and Data Engineering (CDE)
  - BEng in Electronic and Electrical Engineering (ELEL)
  - BEng in Information Engineering (INFE)
  - BEng in Microelectronics Engineering (MEE)

Program Highlights

**CDE - Computer and Data Engineering**
- Hardware and Software Design 電腦硬件及軟件設計
- Data Analytics and Security 數據分析及安全
- Cloud Computing Systems 雲端運算系統
- Machine Learning 機器學習
- Control and Internet of Things 控制與物聯網

**ELEL - Electronic and Electrical Engineering**
- Wireless Communications and Data Technology 無線通訊及數據技術
- Microwave, Terahertz and Optical Technologies 太赫茲及光學科技
- Photonic, Electronic and Sensor Devices 光電子及電子器件、感應器
- Smart Control and Electrical Power Systems 智能管理及能源系統
- Bioelectronics and Bioinformatics 生物電子及生物信息技術

**INFE - Information Engineering**
- Networking and Communications 網絡及通訊
- Algorithms and Optimization 算法與優化
- Cybersecurity 網絡安全
- Artificial Intelligence 人工智能
- Signal Processing 訊號處理

**MEE - Microelectronics Engineering**
- Application specific Integrated Circuits (ASIC) 專業集成電路
- Nanotechnology and Microsystems 納米技術及微型系統
- New Materials for IC 晶片新材料
- Digital Processor 數字電路處理器
- System-on-Chip 單晶片系統

Job Opportunities

*Engineering companies, telecommunications, major utilities (CLP, PCCW)*
- Engineer (Computer/Technical Support/Telecommunication/Electronic/Electrical/Hardware)
- Scientific Consultant/Technologist

*Banking & financial institutions, software and IT companies, transportation (airlines, shipping), government*
- IT Specialist/Network Administrator
- Analyst/Programmer/Software Engineer
- Application Developer/Game Developer

Salary Trend

(2014 – 2021 graduates)
Entrance Requirements

Students will apply for admission to the Department of Electrical Engineering (JS 1205) and enter a major after one year of study.

**Entrance Requirements and Levels**

<table>
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<tr>
<th>HKDSE Applicants</th>
<th>JUPAS Applicants</th>
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<td>Level 3</td>
<td>Level 3</td>
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**Notes:**
- Specified subjects under Elective 1 include M1-Calculus and Statistics/M2-Algebra and Calculus, Information and Communication Technology, Physics, Chemistry, Biology, Combined Science and Integrated Science.

**Other Considerations**
- When considering the priority list of student applicants, we mainly consider subject results obtained in current and past two years.

**Direct / Non-JUPAS Applicants**
- Associate Degree (AD)/Higher Diploma (HD) graduates or final year students may apply for admission to major programmes with Advanced Standing (Year 2 or Year 3). Applicants are normally expected to have completed the AD/HD award with a CGPA of ≥3.0, or an equivalent overall mark or a credit award.
- Other high school qualifications, e.g. GCE, IB, overseas, AD/HD Year 1 students, may apply to enter Year 1.

**Graduate Career Outlook**

**New Impetus to the Economy**

- Improve the listing regime, expand offshore RMB business, and grow a green and sustainable financial sector
- Develop a “Smart Port”, grow high value-added logistics and maritime business, and improve connectivity within the Greater Bay Area and beyond
- Improve small and medium enterprises’ access to bank financing through the Commercial Data Interchange
- Attract reputable dispute resolution institutions to set up offices in the Hong Kong Legal Hub
- Riding on achievements in recent years, build a complete innovation and technology ecosystem
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**Department’s Highlights**

1. Largest EE department among local universities with 50 professors
2. Ranked 21st worldwide and 1st in Hong Kong in Electrical and Electronic Engineering (U.S. News Best Global Universities Rankings 2022); 15th worldwide and 1st in Hong Kong in Electrical Engineering (Performance Ranking of Scientific Papers for World Universities 2021 by National Taiwan University)
3. The department boasts 2 Fellows of the Royal Academy of Engineering (UK), 1 Fellow of the World Academy of Sciences, 27 faculty listed as top 2% of world’s most highly cited scientists, 16 IEEE Fellows, 7 IEEE Society Award Winners, and 3 Croucher Foundation Senior Research Fellows
4. Six EE professors have been awarded the Teaching Excellence Award by the University
5. A caring department emphasizing students’ well-roundedness apart from their technical know-how through ample co-curricular activities – Student Tutoring Scheme, Honor Society, Student Exchange, Internships, Study Tours, SoftSkill and Career Advising Workshops
6. Offering four undergraduate major programmes, two taught master programmes, and two research degree programmes (approx. 1,400 students)
7. With the support from the Ministry of Science and Technology, State Key Laboratory of Terahertz and Millimeter Waves established in 2008 is the first such laboratory in engineering discipline in Hong Kong
8. Laboratory space about 5,000 sq. meters

**Entrance Scholarships for Local Students**

**New Impetus to the Economy**

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**Entrance Scholarships for Local Students**
JS1205

Department of Electrical Engineering
電機工程學系

Bachelor of Engineering in Microelectronics Engineering
工學士(微電子工程學)

DEPARTMENT HIGHLIGHTS

Ranked 21st worldwide and 1st in Hong Kong by subject in Electrical and Electronic Engineering according to U.S. News and World Report Best Global Universities Rankings 2022; 15th worldwide and 1st in Hong Kong in Electrical Engineering, Performance Ranking of Scientific Papers for World Universities by National Taiwan University Ranking 2021; Home to 2 Fellows of the Royal Academy of Engineering (UK), 1 Fellow of the World Academy of Sciences, 27 faculty listed as top 2% of world’s most highly cited scientists, 16 Fellows of the Institute of Electrical and Electronics Engineers, USA (FIEEE), 7 IEEE Society Award Winners, and 3 Croucher Foundation Senior Research Fellows.

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www.ee.cityu.edu.hk  cityuee
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The aims of this major are to educate students in microelectronics technologies, and to prepare graduates with the necessary knowledge, skills and understanding to pursue careers as professional engineers in semiconductor and related fields. The contents covered contain sufficient breadth to allow graduates to work across boundaries, and sufficient depth to equip and prepare them well for employment and postgraduate studies. Through this programme, our graduates will also gain the ability and vision that will enable them to become independent life-long learners in this rapidly changing high-tech industry.

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CO-CURRICULAR ACTIVITIES

Company Internships
In collaboration with industry, the Department offers internship schemes of various lengths (from 3 months to one year) to better prepare students for work upon graduation. Students are connected to prominent industrial and business leaders and 80-100 places are secured yearly. Some companies include Huawei, Sensetime, ASM Technology, Sengital, M-Lab, Lexiwave, SUGA Electronics and Compass Technology.

Global Outreach
Uplifting students’ global outreach and international competitiveness through student exchange is one of the Department’s goals. Since 2015, more than 330 students have been sent out to top universities in countries including Australia, Canada, France, Japan, Korea, the United Kingdom, the United States and many others, for semester-long and/or summer exchange. In addition, the Overseas Internship Scheme (OIS) provides overseas internship opportunities to 30-40 students every year.

Student Activities
Students learn both inside and outside the classroom, and engineers grow by experience. The department provides ample extracurricular opportunities such as undergraduate student research opportunities, academic, technical and entrepreneurial student competitions, student tutoring schemes, technical and soft-skill workshops and student societies. Through these opportunities students apply technical knowledge, hone their communication skills, find their passions, make lifelong connections and, in some cases, launch their careers.