JS1205

Electrical Engineering



(Majors: BEng Computer and Data Engineering/BEng Electronic and Electrical Engineering/ BEng Information Engineering/ BEng Microelectronics Engineering)

Our Majors

- · Common first year
- Students choose a major after one year of study
- · Majors offered:
 - BEng in Computer and Data Engineering (CDE) 工學士(電子計算機及數據工程學)
 - BEng in Electronic and Electrical Engineering (ELEL) 工學士(電子及電機工程學)
 - BEng in Information Engineering (INFE) 工學士(資訊工程學)
 - BEng in Microelectronics Engineering (MEE) 工學士(微電子工程學)

Program Highlights

CDE - Computer and Data Engineering

- · Hardware and Software Design 電腦硬件及軟件設計
- Machine Learning and Deep Learning 機器學習和深度學習
- Applications of Artificial Intelligence (AI) 人工智能應用
- Data Analytics and Security 數據分析及安全
- · Cloud Computing Systems 雲端運算系統

ELEL- Electronic and Electrical Engineering

- · Wireless Communications and Data Technology 無線通訊及數據技術
- · Microwave, Terahertz and Optical Technologies 微波、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 智能管理及電機能源系統
- · 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

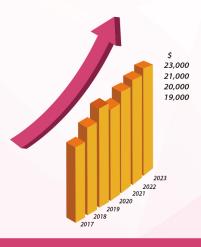
Job Opportunities

Engineering companies, telecommunications, major utilities (CLP, PCCW)

- Engineer (Computer/Technical Support/ Telecommunication/Electronic/Electrical/Hardware)
- Scientific Consultant/Technologist



Salary Trend (2017 - 2023 graduates)



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Entrance Requirements

HKDSE JUPAS Applicants

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

Entrance Requirements and Levels

Eng. Lang.	Chi. Lang.	Maths.	Citizenship and Social Development	Elective 1	Elective 2
Level 3	Level 3	Level 3	Attained	Level 3 any one of specified subjects (Notes)	Level 3 any one subject (Notes)

Notes:

- Specified subjects under Elective 1 include M1-Calculus and Statistics/M2-Algebra and Calculus, Information and Communication Technology, Physics, Chemistry and Biology.
- More details about entrance requirements are available at: https://www.cityu.edu.hk/admo/admissions/jupas-admission.

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 of programme recognized by the University 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 with a CGPA of ≥ 3.0, or an equivalent overall mark or a credit award. More details at: https://www.cityu.edu.hk/admo/admissions/non-jupas-senior-year-admission.
- Other high school qualifications, e.g. GCEAL, IB, overseas, AD/HD Year 1 students, may apply to enter Year 1. More details at: https://www.cityu.edu.hk/admo/admissions/non-jupas-year-1-admission.
- Admission Information for Non-local applicants is available at https://www.cityu.edu.hk/admo/admissions.

Graduate Career Outlook

Reinforce our advantages and build a diversified economy



- Accelerate growth of the innovation and technology (I&T) ecosystem
- Set up the New Industrialisation Development Office to support development of strategic enterprises, facilitate upgrading and transformation of manufacturing sector and assist start-ups
- Establish the Hong Kong Microelectronics Research and Development (R&D) Institute and commission the Microelectronics Centre to facilitate R&D of microelectronics and industry development
- Expedite establishment of a supercomputing centre to foster development of artificial intelligence
- Set up a \$10 billion New Industrialisation Acceleration Scheme to provide matching fund for promoting downstreamdevelopment of new industrialisation

Source: The Chief Executive's 2023 Policy Address



隨着ChatGPT等生成式人工智能(GenAl)技術大行其道,關於科技創新如何影響就業的討論亦愈趨熱烈...人力資源顧問公司Morgan McKinley大中華區(香港及中國)董事總經理Robert Sheffield預計,資訊科技領域的專業人員將更具發展優勢...
「他們的技能組合非常適合其他行業的技術職位;同時,他們也有背景和能力來簡化基於人工智能的新職位及相關升級培訓。」

【2024職場管理】逾5成專業人士看好加薪前景 留人才靠哪5大關鍵?

人工智能正不斷推動科技領域的拓展,他認為此技術與早前其他具顛覆性的科技-樣,正在創造新的職位,同時為現有職位增加了新的技能要求。

職位	平均月薪 (港元)			
數據架構師(Data Architect)	6.5萬至10萬			
機器學習開發維運工程師 (MLOps Engineer)	4萬至7.5萬			
雲端工程師(Cloud Engineer)	3.5萬至6萬			
數據科學家(Data Scientist)	3萬至8萬			
全端/全棧工程師 (Full Stack Developer)	3萬至7萬			
數據工程師(Data Engineer)	3萬至7萬			
數據分析師(Data Analyst)	2.3萬至7萬			
資料來源: Morgan McKinley《2024年	香港薪酬指南》			



Entrance Scholarships for Local Students



Department's Highlights

- 1. Large department with 46 professors
- Ranked 29th worldwide and 1st in Hong Kong in Electrical and Electronic Engineering (U.S. News Best Global Universities Rankings 2024); 12th worldwide and 1st in Hong Kong in Electronics and Electrical Engineering (Research.com 2024)
- The department boasts 2 Fellows of the Royal Academy of Engineering (UK), 1 Fellow of the World Academy of Sciences, 25 faculty listed as top 2% of world's most highly cited scientists, 18 IEEE Fellows, 7 IEEE Society Award Winners, and 2 Croucher Foundation Senior Research Fellows
- 4. Six EE professors have been awarded the Teaching Excellence Award by the University
- 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