

Department of Electrical Engineering



(Options: 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 (ELEE)
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)^

^Subject to final approval in March 2022



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

ELEE - Electronic and Electrical Engineering

- Wireless Communications and Data Technology 無線通訊及數據技術
- 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 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 Design 特定應用積體電路設計
- Nanotechnologies for High-performance Devices and Microsystems 用於高性能設備和微系統的納米技術
- New Designs and Materials for Integrated Circuits 積體電路新設計和材料
- Wireless and Optical Communications 無線及光學通訊
- Embedded System Design 嵌入式系統設計

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

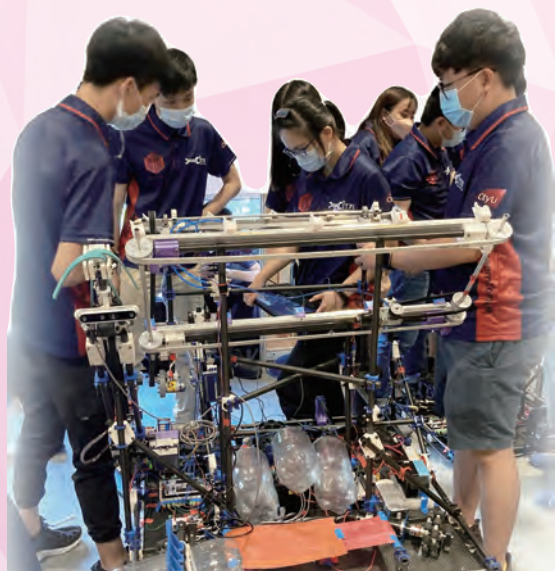
- IT Specialist/Network Administrator
- Analyst/Programmer/Software Engineer
- Application Developer/Game Developer

Salary Trend (2013 – 2020 graduates)

2020 graduates

40% > \$20,000

60% > \$19,000



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Entrance Requirements

HKDSE JUPAS Applicants	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					
	Eng. Lang.	Chi. Lang.	Maths.	Liberal Studies	Elective 1	Elective 2
	Level 3	Level 3	Level 3	Level 2	Level 3 any one of specified subjects (Notes)	Level 3 any one subject (Notes)
<p>Notes:</p> <ul style="list-style-type: none"> 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. More details about entrance requirements are available at: http://www.admo.cityu.edu.hk/jupas/entreq/bd/. <p>Other Considerations</p> <ul style="list-style-type: none"> When considering the priority list of student applicants, we mainly consider subject results obtained in current and past two years. More details about assessment of applications and other information, including subject weighting for main consideration are available at: http://www.admo.cityu.edu.hk/jupas_hkdse/assessment/bd/. 						
Direct / Non-JUPAS Applicants	<ul style="list-style-type: none"> General Entrance Requirements (http://www.admo.cityu.edu.hk/direct/entreq/bd/), and possess Science or Engineering background. 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

High demand for EE graduates



Innovation and Technology

- Earmark over \$200 million to roll out "Knowing More About IT" Programme, subsidise primary schools to enhance students' interests and knowledge in I&T and their applications through extra-curricular activities
- Regularise the pilot scheme which subsidises students studying science and technology in local universities to enrol in short-term I&T related internships
- Inject \$9.5 billion into the Innovation and Technology Fund by two yearly instalments
- Hong Kong Monetary Authority to consider enhancing its Fintech Supervisory Sandbox to reduce time for launching innovative financial products in the market
- Press ahead with the development of the Hong Kong-Shenzhen Innovation and Technology Park in the Lok Ma Chau Loop
- Continue to implement the Science Park expansion and Cyberport 5 development
- Continue to support the development of 5G networks and applications
- Commence progressively the operation of the first batch of about 20 R&D laboratories under the "InnoHK Research Clusters" in the first quarter of this year

Source: 2021-2022政府財政預算案

港創科業陷人才荒 逾千空缺僅聘約200人

香港科技園公司行政總裁黃克強表示，本港有優勢發展創科，但卻面臨人才荒，今年3、4月，有270家公司在職業博覽中招聘2,400職位，空缺比去年多一倍以上，當中65%的空缺涉及人工智能、機械人技術、大數據、智慧城市、醫療科技等...本港卻面對創科人才缺乏的困境，他舉例，去年春天新冠肺炎剛爆發，周邊環境惡劣，當時科學園有超過1,000個科技職位空缺，只有不足200個職位招聘成功。

來源: 6 June 2021 <<東方日報>>



Entrance Scholarships for Local Students



Department's Highlights

- Largest EE department among local universities with 51 professors
- Ranked 20th worldwide and 1st in Hong Kong in Electrical and Electronic Engineering (U.S. News Best Global Universities Rankings 2021); 15th worldwide and 1st in Hong Kong in Electrical Engineering (Performance Ranking of Scientific Papers for World Universities 2021 by National Taiwan University)
- The department boasts 2 Fellows of the Royal Academy of Engineering (UK), 1 Fellow of the World Academy of Sciences, 1 Highly Cited Researcher (since 2009 by Clarivate Analytics), 16 IEEE Fellows, and 3 Croucher Foundation Senior Research Fellows
- 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
- Offering four undergraduate major programmes (Microelectronics Engineering: subject to approval), two taught master programmes, and two research degree programmes (approx. 1,400 students)
- 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
- Laboratory space about 5,000 sq. meters