

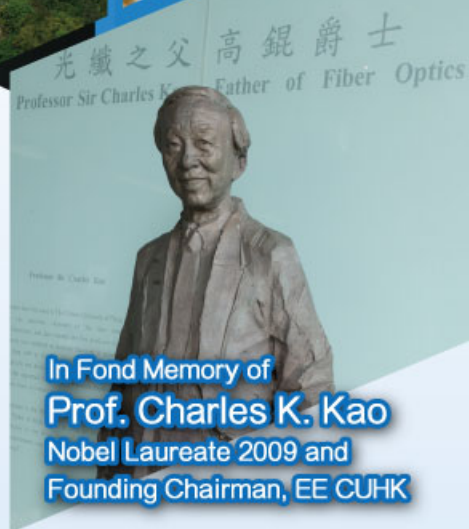
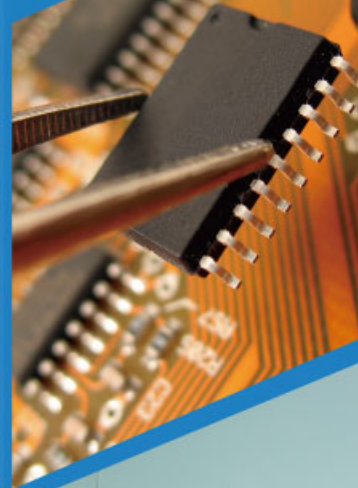


香港中文大學
The Chinese University of Hong Kong

Master of Science in Electronic Engineering

電子工程學理學碩士

授課式碩士課程



In Fond Memory of
Prof. Charles K. Kao
Nobel Laureate 2009 and
Founding Chairman, EE CUHK



CUHK | Electronic Engineering
香港中文大學 | 電子工程學系

Our mission is to educate future leaders, innovators and entrepreneurs 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, learning and research, the Department is guided by the highest international standards.

COURSE LIST

ELEG 5723	CMOS Analog IC Design	ELEG 5757	Intelligent Wearable Electronics New
ELEG 5726	Power Management Technology	ELEG 5758	VLSI Digital Signal Processing
ELEG 5731	Wireless Communication Systems	ELEG 5759	Innovation, Technology and Management in Modern Engineering
ELEG 5732	RF Circuits and Systems	ELEG 5760	Machine Learning for Multimedia Applications New
ELEG 5741	Digital Processing of Speech Signals	ELEG 5761	Power Converters and Their Grid Applications
ELEG 5743	Advanced Signal Processing for Communications	ELEG 5762	Neuromorphic Hardware for Brain-like Computation New
ELEG 5753	Solar Cells and Beyond for Low-carbon Energy New	ELEG 5802#	Research and Development Project
ELEG 5755	Optical Communication and Interconnects	ELEG 5902	Electronic Engineering Internship New

Students, subject to approval, can also elect the following graduate courses primarily for research students and courses from other M.Sc. Programmes within the Faculty of Engineering:

ELEG 5280	Analog-Digital ASIC Design	IEMS5710	Cryptography, Information Security and Privacy
ELEG 5301	Photonic Integrated Circuits	MAEG5755	Robotics
ELEG 5491	Introduction to Deep Learning		
ELEG 5600	Advanced Perception for Intelligent Robotics		

Required course (applicable to students admitted in 2020-21 and thereafter)

- ▶ Each year, a balanced set of courses will be offered from the above list. Students will also be able to take courses designed for research postgraduate students and from other programmes, including those offered by other engineering departments and the Business School, subject to prior approval.
- ▶ These courses attempt to stimulate students' interest in and equip them with a greater command of emerging technologies such as artificial intelligence, big data analytics, future IOT applications, advancement of renewable energy, smart materials, etc.
- ▶ Through interactive teaching and learning we guide our students to get better understanding of the fundamental concepts, to be able to identify and resolve problems, as also to be motivated to innovate new applications across different domains.
- ▶ Students will engage with our research laboratories, working with research postgraduate students on a specific engineering project under the supervision of a faculty member and a dissertation is required at the end of the course.
- ▶ Industrial lecture series and company visits will also be organized for our MSc students.



Industrial Visits and Seminars



THE PROGRAMME

- ▶ A student must take and pass 8 courses including a required dissertation in this programme with a GPA of 2.0 or above to graduate.
- ▶ A student will be discontinued from study if the student has a GPA below 1.0 or fails to have probation lifted after being put on academic probation for two consecutive terms of attendance.
- ▶ The length of study is usually 1 academic year in full-time mode and 2 academic years in part-time mode. Each year has 2 terms.
- ▶ All the lecturing courses are conducted in English. Each course usually consists of 36 lecture hours and a number of tutorials/hand-on training sessions over a period of 14 weeks.
- ▶ Subject to the approval of the Programme Directors concerned, students can take at most two courses from other M.Sc. Programmes within the Faculty of Engineering, or other courses as deemed appropriate.
- ▶ Full-time mode students are allowed to take other day time postgraduate courses offered by the Department of Electronic Engineering.

AWARD OF DEGREE

Graduates will receive a Master of Science Degree in Electronic Engineering from The Chinese University of Hong Kong if satisfy the credit unit and GPA requirements.

VENUE & FACILITIES

The classes will be held in weekday evenings in the University campus in Shatin. Through application, students can use various facilities and service in the Department of Electronic Engineering, and the University, e.g. computer laboratory and the University Library services.

ENTRY REQUIREMENTS

- ▶ A bachelor degree in Electrical Engineering, Electronic Engineering, Information Engineering and Computer Engineering may be admitted to this Programme.
- ▶ Students with a first degree in other fields such as Physics and Mechanical Engineering may also be considered provided that they have some experience and background in electronic engineering.
- ▶ The entry requirements of the Graduate School must also be satisfied.
- ▶ All students should fulfil the English Language Proficiency Requirement prescribed by Graduate School before they are admitted.

For more information, please visit the following websites:

MSc Programme: <http://www.ee.cuhk.edu.hk/en-gb/curriculum/msc-programme/admission>

Graduate School: <https://www.gs.cuhk.edu.hk/admissions/admissions/requirements>

TUITION FEE (PROVISIONAL)

Full Time mode: HK\$174,960 for the whole programme (including 8 courses), HK\$7,290 per unit.

Part Time mode: HK\$174,960 for the whole programme (including 8 courses), HK\$7,290 per unit.

APPLICATION PROCEDURES

Applications will be processed on a first-come-first-served basis, the majority of offers will be made in early rounds. The number of places is limited, interested applicants should consider early submission of their applications.

Full-time mode admission: September

Part-time mode admission: September & January (provisional)

APPLICATION DEADLINE*

1st round admission: 24 October 2022

2nd round admission: 5 December 2022

3rd round admission: 9 January 2023

*For the latest application deadline, please refer to MSc Programme's webpage:
<http://www.ee.cuhk.edu.hk/en-gb/curriculum/msc-programme/admission>.



To apply through Internet, please visit the Graduate School's website:
<https://www.gs.cuhk.edu.hk/admissions/admissions/how-to-apply>.



CIRCUITS & SYSTEMS GROUP

- ▶ Microwave & Wireless Communications
- ▶ VLSI & ASIC
- ▶ Energy Conversion



MULTIMEDIA & SIGNAL PROCESSING GROUP

- ▶ Image and Video Processing
- ▶ Signal and Data Science



ROBOTICS, PERCEPTION & AI GROUP

- ▶ Robotics with Medical, Service, and Industrial Applications
- ▶ Perception, Sensors and Computer Vision
- ▶ AI, Pattern Recognition, and Human Machine Interaction
- ▶ Intelligent and Integrated Systems



SOLID STATE ELECTRONICS & PHOTONICS GROUP

- ▶ Photonics & Optical Communications
- ▶ Solid-state Electronics and Smart Sensing





Tang Min 唐敏

M.Sc. (EE) 2021

Software Engineer, Hong Kong Applied Science and Technology Research Institution
2021 Bright Future Scholarship awardee

It was a wonderful year of studying in the EE Department, CUHK. I have learned three things during this year. Firstly, "Always being optimistic towards the change". In this year of the epidemic, although it was not easy for us to be back home, we celebrated all kinds of festivals together and created amazing and special memories. Secondly, "Study hard, play hard". That rule helped me obtain the scholarship while having a fun time in Hong Kong. Last but not least, "Communicate with classmates as much as we can". Communication could help us obtain more information and open our minds, especially when we are lost.



Tao Dehua 陶德华

M.Sc. (EE) 2017

Ph.D. student (EE) current

When looking back to the experience in the M.Sc. programme, I realize what I learned in that year has laid the foundation for my current study and life. I first learned about the Automatic Speech Recognition (ASR) in the Digital Processing of Speech Signals course and Deep Neural Network models in the Introduction to Deep Learning course. The knowledge I learned in these courses is still helpful for my current research work. The programme offers various courses involving different domains, like speech, image, circuit, etc. These diverse courses can help us to open the mind and find the direction we are interested in.

In addition to the courses, the programme also provides opportunities for students to develop research projects under the supervision of professors in the EE department. I chose a project of ASR application. While completing the project, I learned how to do research and found that ASR techniques interested me. Therefore, I stayed in the DSP lab to do the research related to ASR techniques as the Research Assistant after graduating from the M.Sc. programme. While working as RA, I prepared myself and decided to pursue a Ph.D. degree for further studies.

Lastly, I would like to thank the M.Sc. programme for providing a good platform for growing and discovering my potential.



Yang Yuren 楊裕仁

M.Sc. (EE) 2016

Co-founder of the Shadow Express Electronic Commerce (Hong Kong) Co., Ltd
Co-founder of the Olympics Technology Ltd

I received bachelor's degree from the School of Electronic and Engineering of Nanjing University, and then went to the Chinese University of Hong Kong to pursue a M.Sc. degree in Electronic Engineering. During the period, I took part in the development of intelligent hardware called Ensa by using the knowledge and teacher's guidance in the classroom. I founded the Olympic Science and Technology Co., Ltd. and obtained the offer of Hong Kong Science Park incubation. After graduation, he founded the Shadow Express Electronic Commerce (Hong Kong) Company Limited and participated in research and development of Shadowbox in order to make Hong Kong's logistics industry more efficient and convenient.

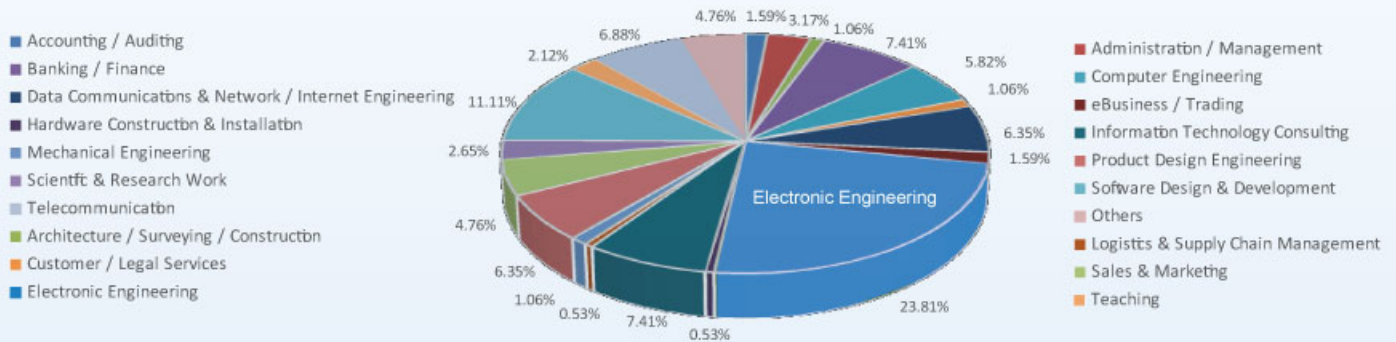
During my master's studies, I not only learned the most professional electronic knowledge of solid-state sensors and lighting systems, wearable bioelectronics, power management ICs, but also I get help from my teachers and classmates.

In the Department of Electronic Engineering, the Chinese University of Hong Kong, your friends and teacher will be your life's wealth.

CAREER

A degree of Master of Science 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: Data Communication & Network, Software Design & Development, Product Design, Data Science, Artificial Intelligence, Investment Bank, etc. Some of our graduates join the famous enterprises, like HUAWEI (9), Alibaba (1), Deloitte, Xeno Dynamics, Nuvoton (1), Maxim Integrated (1), ASTRI (6), ASM (6), etc. The others pursue further studies in CUHK (5) or other universities (4).

Employment of Msc Graduates up to 2021



M.SC. SCHOLARSHIPS

Admission Scholarships

Several scholarships will be awarded to newly admitted students with exceptional academic standing.

- ▶ Department Admission Scholarships

Graduation Scholarships

Students with outstanding academic performance during their course of study of the MSc Programme in Electronic Engineering will be awarded one of the following Graduation Scholarships.

- ▶ Department Graduation Scholarships
- ▶ Bright Future Charitable Foundation Scholarship for M.Sc. in Electronic Engineering
- ▶ Hamen Fan Scholarships for M.Sc. in Electronic Engineering
- ▶ Dr. Raymond Leung Scholarship for M.Sc. in Electronic Engineering
- ▶ Certificate of Merits

Award List:

Graduation Scholarships in 2022

Bright Future Charitable Foundation Scholarship for M.Sc. in Electronic Engineering HE, Rui
 Dr. Raymond Leung Scholarship for M.Sc. in Electronic Engineering MU, Yiyan
 Hamen Fan Scholarship for M.Sc. in Electronic Engineering FUNG, Kei Ching
 Hamen Fan Scholarship for M.Sc. in Electronic Engineering (Best Project) WANG, Liangyu
 M.Sc. Department Graduation Scholarship (Best Project) LIU, Jiakuan
 M.Sc. Department Graduation Scholarship LI, Xinran
 M.Sc. Department Graduation Scholarship LIU, Zhao
 M.Sc. Department Graduation Scholarship SAYSON, Mary Raullette Solomo
 M.Sc. Department Graduation Scholarship ZHANG, Chang
 M.Sc. Certificate of Merit DU, Lan
 M.Sc. Certificate of Merit GAO, Rongyu
 M.Sc. Certificate of Merit HAN, Yifei
 M.Sc. Certificate of Merit HUANG, Jidong
 M.Sc. Certificate of Merit IP, Hon Man
 M.Sc. Certificate of Merit LI, Shuchang
 M.Sc. Certificate of Merit QIAN, Xin
 M.Sc. Certificate of Merit SHEN, Ao
 M.Sc. Certificate of Merit WANG, Zewei
 M.Sc. Certificate of Merit WONG, Tsz Tang
 M.Sc. Certificate of Merit XU, Mingjing
 M.Sc. Certificate of Merit ZHAO, Qiwei
 M.Sc. Certificate of Merit ZHAO, Yuanhao
 M.Sc. Certificate of Merit ZHOU, Yitong

Admission Scholarships in 2022

M.Sc. Department Admission Scholarship CHEN, Mengqiao
 M.Sc. Department Admission Scholarship FENG, Yuan
 M.Sc. Department Admission Scholarship FU, Shen
 M.Sc. Department Admission Scholarship HE, Zhibin
 M.Sc. Department Admission Scholarship LI, Hechen
 M.Sc. Department Admission Scholarship LI, Lei
 M.Sc. Department Admission Scholarship LIAO, Yuan
 M.Sc. Department Admission Scholarship LIU, Tianhang
 M.Sc. Department Admission Scholarship LIU, Yutong
 M.Sc. Department Admission Scholarship NG, Ling Kiu
 M.Sc. Department Admission Scholarship WANG, Guankun
 M.Sc. Department Admission Scholarship WANG, Yuting
 M.Sc. Department Admission Scholarship YANG, Runxing
 M.Sc. Department Admission Scholarship ZHANG, Yuanshuo
 M.Sc. Department Admission Scholarship ZHOU, Runze

ENQUIRIES

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 (MSc in Electronic Engineering)
 Room 404, Ho Sin Hang Engineering Building,
 The Chinese University of Hong Kong,
 Shatin, HKSAR, China

Tel: (852) 3943 8249
 Email: mscinfo@ee.cuhk.edu.hk
 Website: <http://www.ee.cuhk.edu.hk>





电子工程学理学硕士 授课式硕士课程 Master of Science in Electronic Engineering

光纖之父 高錕爵士
Professor Sir Charles K. Kao
Father of Fiber



高錕教授

2009年诺贝尔得奖者
永远怀念您



课程主任(李鸿升教授)寄语

香港中文大学电子工程学系由「光纤之父」，已故诺贝尔物理奖获得者高錕教授创办，并逐步发展成为现在的中文大学工程学院。本系目前有24名教授，其中包括8名IEEE院士(Thierry BLU教授、程伯中教授、马荣健教授、孟庆虎教授、曾汉奇教授、吴克利教授、许建斌教授、于明教授)，在多项前沿科研领域中如先进数字信号处理、人工智能、图像与视频、微波与无线通信、超大规模集成电路和专用集成电路、能量转换、光电子与光通信技术、固态电子等等，均享有国际领先的学术声誉。我们以建设世界一流电子工程学科为目标，以培养国际优秀电子工程领袖人才，科研创业者为使命。

课程简介

本课程包括但不限于：科技与工程管理、人工智能及大数据分析、图像处理与视频技术、语音数字信号处理、光纤通信、无线通信、光电子学与光子器件、固态电子、VLSI集成电路等。全日制学生的修课期为1年，兼读制为2年，每年有2个学期。整个课程共需修读8门课（共24学分），2020-21及以后入学的学生须包括一门必修的毕业项目课程。

课程理论与实践并重，极具挑战性，提升同学在不同电子工程范畴中解决问题的能力，培养多角度思维，启发跨领域的创新能力。

全日制学生：9月入学 / 兼读制学生：9月及1月入学（暂定）
学费（暂定）：
全日制学生：HK\$ 7,290 / 学分，整个课程共HK\$ 174,960。
兼读制学生：HK\$ 7,290 / 学分，整个课程共HK\$ 174,960。

申请手续

申请截止日期(暂定)：第一阶段为2022年10月24日，第二阶段为2022年12月5日，第三阶段为2023年1月9日。请留意电子工程学系主页<http://www.ee.cuhk.edu.hk>公布的最新申请截止日期，以及其他与申请相关的讯息。

课程奖学金 — 奖励求知，激发潜能

- 入学奖学金：本课程将颁发多个“入学奖学金”予本科成绩优异的新生
- 毕业奖学金：每年多名成绩卓越，且GPA达到3.5或以上，或在理学硕士课程论文中取得优秀的学术成就的应届优秀毕业生，将可获得毕业奖学金

前程锦绣

本系为学生提供了广阔的深造就业平台，优秀毕业生去向包括：ASTRI，Solomon，Nuvoton，Xeno Dynamics，Maxim Integrated，网易，华为等知名企业。

联系方式

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