CAREER

A degree of Master in Science in Electronic Engineering provides a solid foundation to launch your career locally or globally with opportunities 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, Alibaba, Deloitte, etc. Others pursue further studies in CUHK or other universities.

M.S. SCHOLARSHIPS

Admission Scholarships

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

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.

Certificate of Merit

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.

2014-2015
COURSE LIST

ELEG 5723 Omni-Algorithmic Design
ELEG 5744 VLSI Design Methodology & Testing
ELEG 5725 Power Management Technology
ELEG 5771 Wireless Communication Systems
ELEG 5776 Innovation, Technology and Management in Modern Engineering
ELEG 5712 RF Circuits and Systems
ELEG 5741 Digital Processing of Speech Signals
ELEG 5742 Image Processing & Video Technology
ELEG 5743 Advanced Signal Processing for Communications
ELEG 5752 Metal-Oxide-Semiconductor Devices
ELEG 5753 Flexible Electronics and Solar Cell Technology
ELEG 5754 Solid-State Sensors and Lighting Systems
ELEG 5756 Optical Communication and Internetworking

THE PROGRAMME

- A student must take and pass 6 courses including a required dissertation in the programme with a GPA of 2.0 or above to graduate.
- A student will be deemed to have satisfied the academic requirements for doctoral study if they have a GPA below 2.0 but have successfully defended their doctoral dissertation and passed the oral examination 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 courses are delivered in English. Each course usually consists of 36 lecture hours and a number of laboratory hands-on learning 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 MSc Programmes within the Faculty of Engineering, or other courses as deemed appropriate.
- Fulfilment 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 weekly evenings in the University campus in Shatin. Through application, students can use various facilities and services 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 the 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.

TUTION FEES

Full-time mode: HK$140,000 for the whole programme (including 6 courses). HK$25,000 per unit.
Part-time mode: HK$130,000 for the whole programme (including 6 courses). HK$25,000 per unit.

APPLICATION PROCEDURES

Applicants will be required to submit the following documents:
- An application form.
- A resume and a letter of motivation.
- Three academic references.
- A personal statement.

APPLICATION DEADLINE

1st round admission: 15 October 2021
2nd round admission: 22 November 2021
3rd round admission: 20 December 2021

*For the latest application deadlines, please refer to the Programme website http://www.ee.cuhk.edu.hk/graduates/our-programs/programme-admission

SOLID STATE ELECTRONICS & PHOTONICS GROUP

- Photronics & Optical Communications
- Solid-State Electronics

MULTIMEDIA & SIGNAL PROCESSING GROUP

- Image and Video Processing
- Signal and Data Science

CIRCUITS & SYSTEMS GROUP

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

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
COURSE LIST

ELEG 1723 CMOS Analog IC Design
ELEG 1724 VLSI Design Methodology & Testing
ELEG 1726 Power Management Technology
ELEG 1731 Wireless Communication Systems
ELEG 1736 Innovation, Technology and Management in Modern Engineering
ELEG 1732 RF Circuits and Systems
ELEG 1741 Digital Processing of Speech Signals
ELEG 1742 Image Processing & Video Technology
ELEG 1743 Advanced Signal Processing for Communications
ELEG 1745 Metal-Oxide-Semiconductor Devices
ELEG 1753 Flexible Electronics and Solar Cell Technology
ELEG 1754 Solid-state Sensors and Lighting Systems
ELEG 1756 Optical Communication and Transceivers

Students, subject to approval, can also elect the following graduate courses primarily for research students:

ELEG 3580 Analog Digital ASIC Design
ELEG 3591 Picotech Integrated Circuits
ELEG 4501 Introduction to Deep Learning
ELEG 3950 Advanced Perception for Intelligent Robotics

THE PROGRAMME

- A student must take and pass 8 courses including a required dissertation in the programme with a GPA of 2.0 or above to graduate.
- A student will be discriminated from the student has a GPA below 2.5 at the end of one academic year 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 teaching courses are conducted in English. Each course usually consists of 36 lecture hours and a number of lectures/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.C. 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 they satisfy the credit units and GPA requirements.

VENUE & FACILITIES

The classes will be held in weekly evenings in the University campus in Sha Tin. 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.

Tuition Fee (Provisional)

Full-time mode: HK$141,000 for the whole programme (including 8 courses), HK$17,625 per unit.
Part-time mode: HK$185,000 for the whole programme (including 8 courses), HK$22,500 per unit.

APPLICATION PROCEDURES

Applications will be received 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: 15 October 2021
2nd round admission: 22 November 2021
3rd round admission: 20 December 2021

For the latest application deadline, please refer to the Programme’s website: http://www.elec.cityu.edu.hk/graduate/programme-programme/application

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
COURSE LIST

ELEG 5173 CMOS Analog IC Design
ELEG 5174 VLSI Design Methodology & Testing
ELEG 5175 Power Management Technology
ELEG 5176 Wireless Communication Systems
ELEG 5177 Innovation, Technology and Management in Modern Engineering
ELEG 5178 RF Circuits and Systems
ELEG 5179 Digital Processing of Speech Signals
ELEG 5180 Image Processing & Video Technology
ELEG 5181 Analog Signal Processing for Communications
ELEG 5182 Metal-Oxide-Semiconductor Devices
ELEG 5183 Flexible Electronics and Solar Cell Technology
ELEG 5184 Solid-State Sensors and Lighting Systems
ELEG 5185 Optical Communication and Transceivers

Students, subject to approval, can also elect the following graduate courses primarily for research students:

ELEG 5580 Anatomy Digital ASIC Design
ELEG 5591 Photonic Integrated Circuits
ELEG 5401 Introduction to Deep Learning
ELEG 5580 Advanced Perception for Intelligent Robotics

THE PROGRAMME

- A student must take and pass 6 courses including a required dissertation in the programme with a GPA of 2.0 or above to graduate.
- A student can be discontinued from the student if the student has a GPA below a minimum of 2.0. A student can also be dismissed for academic probation for two consecutive terms of attendance.
- A 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 laboratory/field or on-lab sessions over a period of 14 weeks.
- Subject to the approval of the Programme Director, students can take at most two courses from other MSc 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 they satisfy the credit unit and GPA requirements.

VENUE & FACILITIES

The classes will be held in weekly evenings in the University campus in Sha Tin. Through application, students can use various facilities and services 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 the 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.

TUITION FEE (PROVISIONAL)

Full Time mode: HK$161,027 for the whole programme (including 6 courses), HK$25,209 per unit.
Part Time mode: HK$138,959 for the whole programme (including 6 courses), HK$23,159 per unit.

APPLICATION PROCEDURES

Applications will be processed on a first-come-first-served basis. 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: 15 October 2021
2nd round admission: 22 November 2021
3rd round admission: 20 December 2021

*For the latest application deadlines, please refer to the Programme’s website: http://www.ee.cuhk.edu.hk/graduates/master-programme/programme-admission

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
STUDENT SHARING

Shum Tak Lok, Samuel 沙德洛

M.Sc. (EE) 2019

Engineering, Hong Kong Applied Science & Technology Research Institute Co., Ltd (ASTRI) 2019 Bright Future Scholarship awardee

Currently, I am working in a research institute in HK. The academic qualification is the major component in my job. After the beginning, I see this MSc programme offered by the Department of Electronic Engineering, CUHK as a leap forward of my career success. And I don’t care about the intensity of the course subject or the course grade. However, this course is totally closed to what I have learned in my first course called the Power-Management Technology. In this course, Prof. Leung can make sure of the examples in daily life to exploit some complex concepts. This level of thinking style has inspired my change in the pursuit of learning attitude, which is of great benefit to my future research work.

In the MSc course, I have not only learnt many technologies such as wire communication, deep learning, AI design, etc. I also have learned some soft skills taught by a course called the Innovation, Technology and Management in Modern Engineering. For example, I learn how to understand and cultivate myself and how to deal with the problems. Also, from the guest lecture provided by the CEO and Entrepreneur, I learn the path to success from their experience.

In conclusion, this MSc course has been a great help for my future development.

Tao Dehua 杜得华

M.Sc. (EE) 2017

Ph.D student current

When looking back to the experience in the M.Sc. programme, I realise 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 networks in the Introduction to Deep Learning course. The knowledge I learned during these courses forms the basis for my future research topics, the ASR techniques as the Research Assistant after graduating from the M.Sc. programme. While working on my Ph.D., I continued my research 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 焦悦仁

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 Hangdong 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 Enso 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 Incubator. After graduation, he founded the Shadow Express Electronic Commerce (Hong Kong) Company and is still participating in research and development of ShadowExpress in order to make Hong Kong’s economy recover more quickly.

During my master’s years, I not only gained the most professional electronic knowledge of solid-state devices and light-hp systems, wearable bioelectronics, power management, etc., but also I get help from my teachers and classmates. In the Department of Electronic Engineering, the Chinese University of Hong Kong, you 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 opportunities 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, Alibaba, Deloitte, etc. The others pursue further studies in CUHK or other universities.

M.S.C. SCHOLARSHIPS

Admission Scholarships

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

- President’s 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 Mr. Sc in Electronic Engineering
- Hammersham Scholarships for M.Sc in Electronic Engineering
- Departmental Scholarship for Mr.Sc in Electronic Engineering

Certificate of Merits

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 an emphasis on 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.

Address: Division of Electronic Engineering (MSc in Electronic Engineering)
Room 4544, Ha-Soi Hong Engineering Building, The Chinese University of Hong Kong, Shatin, N.T., China
Tel: 852-3442 8248
Email: mec@ee.cuhk.edu.hk
Website: http://www.ee.cuhk.edu.hk

Master of Science in Electronic Engineering
電子工程學理學碩士
授課式碩士課程
CAREER

A degree of Master of Science in Electronic Engineering provides a solid foundation to launch your career locally or globally with excellent employers in a wide range of technological sectors, which include: Data Communications & Network, Software Design & Development, Product Design, Data Science, Artificial Intelligence, Investment Bank, etc. Some of our graduates join the famous enterprise, like Huawei, Alibaba, Deloitte, etc. The others pursue further studies in CUHK or other universities.

Tao Dehua 豐德華
M.Sc. (EE) 2017
Ph.D. student current

When looking back to the experience in the M.Sc. programme, I realise what I learned in that year has led to the foundation for my current study and job. I first learned about the Automatic Speech Recognition (ASR) in the Digital Processing of Speech Signals course and deep learning in the Digital Signal Processing course. The knowledge I learned in those 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 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 on ASR applications. While completing the project, I learned how to do research and found that the project is more exciting and challenging than those in the program. I believe that my experience in the ASR techniques as the Research Assistant after graduating from the M.Sc. programme. While working on this role, I learned a lot 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

I received bachelor’s degree from the School of Electronic and Engineering of Ningbo 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 Eny, using it in the teaching 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 incubator. After graduation, he founded the Shadow Express Electronic Commerce (Hong Kong) Company Limited and participated in research and development of ShadowExpress in order to make Hong Kong’s express industry more competitive.

During my master’s study, I explored the latest professional knowledge of solid-state sensors and lighting systems, wearable bioelectronics, power management or IoT, 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.

M.S.C. SCHOLARSHIPS

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

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.

Certificate of Merits

Address: Division of Electronic Engineering (MSc in Electronic Engineering)
Room 844, Ho Sin Hong Engineering Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong
Tel: (852) 3943 8249
Email: mecadmin@ee.cuhk.edu.hk
Website: http://www.ee.cuhk.edu.hk
课程主任(李鸿升教授)寄语

香港中文大学电子工程学系于1996年创立，由著名科学家、2009年诺贝尔物理学奖得主高锟教授创立，并逐步发展成为现在的电子工程学系。本系目前有22名教授，其中包括8名IEEE院士(Thierry Balouo教授、程伯中教授、马赛英教授、孟庆伟教授、曾汉奇教授、吴克利教授、洪建军教授和李鸿升教授)，在多个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有源集成电路、光电子与光通信技术、柔性电子等，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域人才，科研创新者为使命。

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，图像处理与视觉系统，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。全日制学生的学习期为3年，学制期为3学年。整个课程共需修满8个学分，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实际问题的能力，培养学生多元思维，启发跨领域的创新能力。

申请手续

申请截止日期(暂定)：第一阶段为2021年10月18日，第二阶段为2021年11月22日，第三阶段为2022年12月23日。请留意电子工程学系及http://www.ee.cuhk.edu.hk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—奖励知求，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，在理学硕士课程论文中取得优秀的学术成就的应届毕业生，将获得毕业奖学金

前程锦绣

本系为学生提供了广阔而深邃的就业平台，优秀毕业生走向包括：ASTRI，Solomon，Nuvoton，Xeno Dynamics，Maxim Integrated，网易，华为等知名企业。

联系方式

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