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本科生专业
Undergraduate Program
数学与应用数学
Mathematics and Applied Mathematics
物理学
Physics
化学
Chemistry
材料科学与工程
Materials Science and Engineering
新能源科学与工程
New Energy Science and Engineering
电子与计算机工程
Electrical and Computer Engineering
金融工程（与经管学院和数学科学学院联合开设）
Financial Engineering (offered jointly with SME and SDS)

授课型硕士专业
Taught Postgraduate Program
通信工程理学硕士专业
Master of Science in Communications Engineering
人工智能与机器人理学硕士专业（与数据科学学院联合开设）
Master of Artificial Intelligence and Robotics (offered jointly with SDS)
供应链与物流管理高级管理人员理学硕士专业（与经管学院联合开办）
Executive Master of Science in Supply Chain and Logistics Management (offered jointly with SME)
计算机与信息工程理学硕士
Master of Science in Computer and Information Engineering
金融数学理学硕士（拟新增）
Master of Science in Financial Mathematics (approval pending)
集成电路与系统理学硕士（拟新增）
Master of Science in Integrated Circuits and Systems (approval pending)
研究型硕士-博士专业
MPhil - PhD Program
数学硕士-博士专业
MPhil - PhD Program in Mathematics
物理学硕士-博士专业
MPhil - PhD Program in Physics
化学硕士-博士专业
MPhil - PhD Program in Chemistry
材料科学与工程硕士-博士专业
MPhil - PhD Program in Materials Science and Engineering
能源科学与工程硕士-博士专业
MPhil - PhD Program in Energy Science and Engineering
计算机与信息工程硕士-博士专业
MPhil - PhD Program in Computer & Information Engineering
生物医学工程硕士-博士专业（与医学院联合开设）
MPhil-PhD Program in Biomedical Engineering (offered jointly with MED)
学院简介
About School of Science and Engineering

理工学院成立于2015年，秉承香港中文大学优良的学术传统，沿用香港中文大学已有的严格的质量控制体系，结合国际学科发展趋势，与多所世界著名大学展开合作，借鉴海内外高等教育的成功经验，定位于战略性新兴理工学科，招聚世界级的教授队伍，构建中西方结合的独特学习环境，培育新一代具备专业知识、多元才能和国际视野的科技领导人才。

Established in 2015, the School of Science and Engineering (SSE) inherits the elite academic tradition and follows the proven high-quality academic system of The Chinese University of Hong Kong, cooperates with well-regarded universities in America, Australia, Canada, etc., references the successful experiences of institutes at home and abroad, recruits high-caliber professors globally, builds a unique learning environment that embraces China and the West, and nurtures technology leaders possessing expertise, diverse talents and global visions.

愿景
Vision

努力成为区域、全国及国际公认的一流科学与工程学术中心，并在中英双语、全球视野及跨学科的教育教学、学术成果及社会贡献诸方面，均达到卓越水准。

To be acknowledged regionally, nationally and internationally as a first-class centre of scholarship in science and engineering whose bilingual, global and interdisciplinary dimensions of teaching and learning, scholarly output and contribution to the community consistently meet standards of excellence.

使命
Mission

致力于在科学与工程的学科领域创造、增进及传播知识，培育勇于创新、高瞻远瞩、严于律己、具备全球视野并努力改善业界和社会的科学家、工程师及领袖人才，以适应社会的需求，促进粤港澳大湾区、全中国，乃至全世界的发展，贡献社会，造福人类。

To create, advance, and share knowledge in the fields of science and engineering, and to train innovative, forward-thinking, globally-minded and principled scientists, engineers and leaders who strive for the betterment of industries and society, thereby serving the needs and promoting the well-being of the citizens in the Guangdong-Hong Kong-Macao Greater Bay Area, China as a whole, and the global community.
唐本忠
院长
TANG, Ben Zhong
Dean

肖博文
执行副院长
XIAO, Bowen
Executive Associate Dean

帅志刚
副院长（科研）
SHUAI, Zhigang
Associate Dean (Research)

许杰
助理院长（科研）
XU, Jie
Assistant Dean (Research)

张纵晖
助理院长（教育）
CHANG, Tsung-Hui
Assistant Dean (Education)

张祺
助理院长（外事）
ZHANG, Qi
Assistant Dean (External Affairs)

凌晗
助理院长（学生事务）
LING, Han
Assistant Dean (Student Affairs)

方奕森
院务主任
Fong, Yik Sum Terence
Director of School Administration
The School of Science and Engineering (SSE) currently offers 7 undergraduate programs. These programs provide a wide range of required and elective courses, aimed at giving students a strong academic foundation and necessary professional skills. In addition, SSE offer 6 postgraduate programs and 7 MPhil-Ph.D. programs. SSE has developed diverse training programs for undergraduate students, including the Bachelor-Ph.D. Class, Bachelor-Master Class, Elite Class and CUHK x CUHK(SZ) Double Major Programs. These programs provide students with a comprehensive and intensive path for professional development, imparting fundamental knowledge as well as research capabilities.
数学与应用数学  
Mathematics and Applied Mathematics

数学是研究物质世界与人类思维本质的学科。该学科旨在用科学语言描述宇宙范围和思维范畴中的各种具体与抽象的现象，为认识与研究世间万物及其运动规律提供思想、观念和分析方法，是学习和研究自然科学、工程技术、社会科学的基础，在人类历史发展和社会生活中发挥着不可替代的作用。在信息化与互联网时代，数学的应用范围更加广泛，在大数据处理、智慧城市、金融分析、风险管理、经济调控等方面，数学学科的训练为科学技术人员提供了高屋建瓴的全局视野，及分析复杂现象、发现普遍规律、发明高效方法的科学基础。

本专业旨在培养数学思维能力、分析研究能力和规范表达能力，使学生具备扎实的学科基础，及运用数学方法发现、提炼和解决问题的能力。专业课程不仅教授数学基本理论，还将训练学生在物理、化学、能源、生物、工程技术、计算机、互联网技术、商业、金融、管理、生命科学及社会科学等各领域内应用数学方法来解决实际问题。

Mathematics is a discipline of study on the material world and the nature of human thinking. This discipline is pursued to describe all physical and conceptual phenomena in the universe and in the realm of thought by using scientific language, and to provide theoretical frameworks and methodological tools for investigating and understanding all things in the world and the laws of their motions and changes. Mathematics is the basis of learning and researching natural sciences, engineering and social sciences, and has been playing an irreplaceable role in the development of human history and in social life. In the age of information and the Internet, the scope of application of mathematics is more extensive. In big data processing, smart city, financial analysis, risk management, economic regulation and other aspects, the training of mathematics provides scientific and technical personnel with a high-level overall vision, and provides the scientific basis and ability of analyzing complex phenomena, discovering general laws, and inventing efficient methods.

The Mathematics and Applied Mathematics (MAT) program is designed to give students a firm grounding in mathematics and cultivate their mathematical thinking ability, analytical research ability, and standardized expression ability, so that students have a solid subject foundation and the ability to discover, identify and solve problems using mathematical methods. In addition to fundamental mathematical theories, students will be trained in applying mathematical methods to find and solve practical problems in areas as diverse as physics, chemistry, energy, biology, engineering technology, scientific computing, internet technology, business, finance, management, life science and social science.

本专业提供三个专修方向 ▶

MAT program provides three streams

<table>
<thead>
<tr>
<th>A</th>
<th>理论数学</th>
<th>Pure Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>学习和研究数学学科的基础理论知识和方法，包括几何、代数、分析等门类。重在打好学科基础，培养分析、推理、综合、论证和科学表达的能力。</td>
<td></td>
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</tr>
<tr>
<td>Students will study and investigate the fundamental theories and methodologies of mathematics, including geometry, algebra, analysis and other subjects. Emphasis is placed on establishing a solid foundation in the field and cultivating the abilities to analyze, reason, synthesize, demonstrate, and express scientifically.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>B</th>
<th>应用数学</th>
<th>Applied Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>学习数学理论和方法，包括数学建模、运筹学、概率论和计算方法等，培养运用数学知识和计算机技术解决实际问题的能力。</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students will study mathematical theories and methods, including mathematical modeling, operations research, probability theory and computational methods, and develop the ability to use mathematical knowledge and computer technology to solve real-world problems.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>C</th>
<th>金融数学</th>
<th>Financial Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>学习数学理论和方法，利用数学工具研究金融问题，培养利用数学模型、数据和计算机等工具分析量化金融的能力。</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students will study mathematical theories and methods, and use mathematical tools to analyze financial issues, and develop the ability to use mathematical models, data and computers to conduct quantitative financial analysis.</td>
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</tr>
</tbody>
</table>

Undergraduate Program 05
黄劲松 HUANG, Jingsong
校內講座教授
Presidential Chair Professor

麻省理工学院博士
研究領域：数理逻辑; 数学和概率论
Ph. D. (Massachusetts Institute of Technology)
Research field: Representation theory, Lie groups and harmonic analysis

倪维明 NI, Wei-Ming
校內講座教授
Presidential Chair Professor

纽约大学博士
研究領域：偏微分方程; 数学生物
Ph. D. (New York University)
Research field: Partial differential equations, mathematical biology

王筱平 WANG, Xiaoping
校內講座教授
Presidential Chair Professor

纽约大学库恩研究所博士
研究领域：非线性问题的构造与模拟; 图像处理; 智能制造中的缺陷优化问题以及磁性计算的数值方法
Ph. D. (Courant Institute of Mathematical Sciences, NYU)
Research field: Modeling and simulation of interface problems and multiphase flow, image processing, topology optimization problem in intelligent manufacturing and numerical method of micro-magnetic calculation

王学锋 WANG, Xuefeng
研究生院院长、校內讲座教授
Dean of Graduate School, Presidential Chair Professor

明尼苏达大学博士
研究领域：偏微分方程及其应用
Ph. D. (University of Minnesota)
Research field: Partial differential equations and applications

潘兴斌 PAN, Xingbin
教授，本科专业负责人
Professor, Program Director

山东大学博士
研究领域：偏微分方程: 变分方法; 摺皱液体; 液晶; 电离场的数学理论; 非线性Maxwell方程与Maxwell-Stokes方程
Ph. D. (Shandong University)
Research field: Partial differential equations: calculus of variations, mathematical theory of superconductivity, liquid crystals and electrostatics, nonlinear Maxwell equations and Maxwell-Stokes equations

阿曼 Kachmar
教授
Professor

巴黎第十一大学博士
研究领域：数学分析、谱和偏微分方程，重点分析与量子力学和凝聚物质中的相变和液体相变相关的领域
Ph. D. (University Paris XI)
Research field: Mathematical analysis, spectral theory, and partial differential equations, with a focus on questions related to quantum mechanics and phase transitions in condensed matter physics

贺冬冬 HE, Dongdong
副教授
Associate Professor

加拿大康考迪亚大学博士
研究领域：偏微分方程数值解; 数学模型与科学计算; 流体力学; 计算流体力学; 应用近似分析
Ph. D. (York University)
Research field: Numerical methods for partial differential equations, mathematical modeling and scientific computing, fluid mechanics, computational fluid dynamics, applied asymptotic analysis

李玉田 LI, Yutian
助理教授、本科专业负责人
Assistant Professor, Program Director

香港城市大学博士
研究领域：分析及应用; 偏微分方程; 科学计算与数值分析; 数理金融
Ph. D. (City University of Hong Kong)
Research field: Analysis and application, partial differential equations, scientific calculations and numerical analysis, mathematical finance

王东 WANG, Dong
助理教授、硕博项目负责人
Assistant Professor, MPhil-PhD Program Director

香港青年学者
香港科技大学博士
研究领域：计算流体力学; 计算材料科学; 图像处理; 优化; 机器学习
Presidential Young Fellow
Ph. D. (The Hong Kong University of Science and Technology)
Research field: Computational fluid dynamics, computational material science, image processing, optimization, machine learning asymptotic analysis

张功球 ZHANG, Gongqiu
助理教授、金融数学方向负责人
Assistant Professor, Program Director of FM Stream

香港中文大学博士
研究领域：金融工程; 蒙特卡罗模拟; 应用概率; 信贷风险; 机器学习
Ph. D. (The Chinese University of Hong Kong)
Research field: Financial engineering, Monte Carlo simulation, applied probability, credit risk, machine learning
### 学院课程 School Package

#### 普通化学 General Chemistry
- 选项 A Option A: 微积分 (一) Calculus I
- 选项 B Option B: 微积分荣誉课程 (一) Honours Calculus I

#### 计算机科学导论: 程序设计方法 Introduction to Computer Science: Programming Methodology
- 选项 C Option C: 计算机科学导论: 程序设计方法 Introduction to Computer Science: Programming Methodology

#### 选项 D Option D: 计算机科学与Java程序设计导论 Introduction to Computer Science and Java Programming

#### 选项 E Option E: 线性代数 Linear Algebra
- 选项 F Option F: 线性代数荣誉课程 Honours Linear Algebra

#### 力学 Mechanics
- 概率论基础 Probability

### 必修科目 Major Required Courses

#### 理论数学方向 Pure Mathematics Stream
- 选项 A Option A: 数学分析 Mathematical Analysis

#### 应用数学方向 Applied Mathematics Stream
- 选项 A Option A: 数学分析 Mathematical Analysis

#### 金融数学方向 Financial Mathematics Stream
- 选项 A Option A: 统计学 Probability Theory

### 选修科目 Major Elective Courses

- 普通生物学 General Biology
- 生物信息学 Bioinformatics
- 物理化学 Physical Chemistry
- 高级离散数学 Discrete Mathematics
- C/C++程序设计 C/C++ Programming
- 数学结构 Data Structures
- 机器学习 Machine Learning
- 微观经济学 Microeconomics
- 会计与金融机构经济学 Economics of Money and Financial Institutions
- 财务管理 Financial Management
- 市场与期货 Futures and Options
- 固定收益证券分析 Fixed Income Securities Analysis
- 金融数据分析 Financial Data Analysis
- 金融计算 Financial Computation
- 抽象代数 (一) Abstract Algebra I
- 抽象代数 (二) Abstract Algebra II
- 实反馈 Real Analysis
- 微分几何 Differential Geometry
- 模块与表示论 Modules and Representation Theory
- 微分方程 Partial Differential Equation
- 数值方法数值解 Numerical Methods for Differential Equations
- 课题研究 Project
- 随机微分方程 Stochastic Differential Equation
- 随机和动力系统 Ordinary Differential Equations and Dynamical Systems
- 高等抽象代数 (一) Advanced Abstract Algebra I
- 数学建模 Mathematical Modeling
- 信息论专题 Selected Topics in Information Theory
- 数值分析 Numerical Analysis
- 几何与拓扑学 Introduction to Geometry and Topology
- 拓扑学 Topology
- 编码理论 Coding Theory
- 密码学 Cryptography
- 数值分析 Functional Analysis
- 微分方程 Partial Differential Equation
- 模块与表示论 Modules and Representation Theory
- 微分方程数值解 Numerical Methods for Differential Equations
- 课题研究 Project
- 随机微分方程 Stochastic Differential Equation
- 随机和动力系统 Ordinary Differential Equations and Dynamical Systems
- 高等抽象代数 (一) Advanced Abstract Algebra I
- 偏微分方程 (一) Partial Differential Equations I
- 偏微分方程 (二) Partial Differential Equations II
- 李群与李代数 Lie Group and Lie Algebra
- 代数拓扑 Algebraic Topology
- 高等数值方法 Advanced Numerical Methods
- 高等金融模型 Advanced Financial Models
- 电磁学 Electricity and Magnetism
- 电动力学 (一) Electrodynamics I
- 理论力学 (一) Theoretical Mechanics I
- 量子力学 Quantum Physics
- 量子力学 Quantum Mechanics
- 统计学 Statistical Mechanics
- 金融及风险管理数值方法 Simulation Methods for Risk Management and Finance
- 风险管理及衍生工具 Risk Management with Derivatives
- 随机过程 Stochastic Processes
- 精算学 Actuarial Science

*更新至2024年1月 Updated to January 2024

Scan the QR code to view study scheme

Undergraduate Program 07
物理学
Physics

物理学专业旨在为学生提供基于实践的完整课程体系并由此引领学生接触该领域的前沿技术原理。四年严格的课程学习与科研实践经验积累，使学生掌握物理学科的基本概念、掌握基本实验方法、拓宽相关领域的知识面，具备综合运用物理知识建立模型解决实际问题的能力和实验技能。同时，本专业注重培养学生的精神、创新意识、学习和提出并解决问题的能力，使学生熟悉物理学学科认识世界的基本规律，获得探索自然界深层次规律的方法，并具备一定的科学研究能力。

物理学专业毕业生可前往国际一流大学或机构从事研究生学习或研究，或加入企业事业单位发展物理学相关的工作，进入高校、科研院所等从事科研、教学、技术和行政管理工作。此外，物理学毕业生在金融和信息技术等行业也颇受欢迎。

The objective of the Physics program is to expose students to physics concepts and cutting-edge technologies in physics through a comprehensive curriculum based on lab practices. After four years of rigorous coursework and hands-on experiences, students will develop a solid understanding of fundamental physics concepts, master fundamental physics experimental techniques, broaden the horizon of their knowledge in related fields, and have the ability to apply physics knowledge to solve real-world problems through building models and conducting experimental tests. Students are also encouraged to develop scientific spirit, creativity, independence, and the ability to identify and solve problems, as well as gain research experiences by exploring the world around us and the fundamental laws of nature.

Physics graduates can pursue postgraduate study or research at world-class universities or institutions, join enterprises and institutions for physics-related work, or enter universities, national defense departments, and scientific research institutions to engage in scientific research, teaching, technology, or related management. Physics graduates are also in high demand in industries such as finance and information technology.

专业优势 Features of the Physics Program at CUHK(SZ)

- 国际一流师资，包括唐教授、齐教授等多门课程的国际知名学者。
- 重视教育的国际接轨，专业课程采用国际经典教材，让学生接触并学习国际前沿的物理知识。
- 注重实践教学，在传统的实验课程基础上，将物理课题与实验结合，为高年级学生提供研究性实验的机会。
- 强调物理知识与实践相结合，为解决物理相关的国家“卡脖子”问题培养人才。

Internationally renowned faculties, including Prof. Tong, Prof. Shi, and other prominent scholars, are actively engaged in the forefront of teaching.

Emphasis on international education integration. All courses use internationally acclaimed textbooks and are taught in English, enabling students to gain a profound understanding of physics through classic original texts, cultivate the ability to communicate and learn internationally in the professional field.

Emphasis on experimental practice. In addition to traditional laboratory courses, the program sets up separate courses for physics topics, providing senior students with the opportunities to carry out independent research experiments under the supervision of a mentor. Through these experiences, students can explore the methods for identifying and solving physics problems, fostering their growth as professional and versatile talents.

Emphasis on the combination of physics and practice, in order to solve the bottleneck problems related to physics and cultivate talents. This major not only offers theoretical courses like astronomy and quantum mechanics, but also offers applied physics courses.

08 Undergraduate Program
**Faculty Representatives**

**Ji Zhijian SHUAI, Zhigang**
Associate Dean (Research), X.Q. Deng Presidential Chair Professor

- Chinese Academy of Sciences President
- Member of the Chinese Academy of Sciences
- Member of the World Academy of Sciences for the Advancement of Science in Developing Countries

**Tong Shuk Yin, David**
X.Q. Deng Presidential Chair Professor

- Gold Medalist, University of California, Irvine, 2009
- Ph.D. (University of California, Irvine)

**Xiao Bowen**
Executive Associate Dean, Associate Professor

- Ph.D. (Columbia University)
- Research Field: Theoretical physics, high energy nuclear physics, nanophotonics

**Zhang Zhaoyu**
Associate Professor

- Ph.D. (California Institute of Technology)
- Research Field: Nanophotonics, organic light emitting devices, perovskite optoelectronics, thin film solar cells

**Xie Biye**
Assistant Professor

- Ph.D. (The University of Hong Kong)
- Research Field: Topological physics, artificial condensed phase materials, photonic and acoustic functional devices

**Zhu Xi, Zhi**
Assistant Professor

- Ph.D. (The Chinese University of Hong Kong)
- Research Field: Plasmonics, nanophotonics, bio-nanotechnology

**Zhu Xiaolu**
Assistant Professor, MPhil-PhD Program Director

- Ph.D. (The Chinese University of Hong Kong)
- Research Field: Physics and Condensed Matter Physics

**Zhou Yan**
Professor

- Ph.D. (University of California, Irvine)
- Research Field: Spintronics, spinICs, condensed matter physics, magnetic materials and devices

**Zhang Jiahui**
Associate Professor, Program Director

- Ph.D. (Technical University of Munich, Germany)
- Research Field: Theoretical physics, high-energy physics, nuclear physics
## 学院课程 School Package

### 普通化学 General Chemistry

<table>
<thead>
<tr>
<th>选项 A Option A</th>
<th>线性代数 Linear Algebra</th>
<th>选项 B Option B</th>
<th>线性代数荣誉课程 Honours Linear Algebra</th>
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<tbody>
<tr>
<td>选项 C Option C</td>
<td>计算机科学导论：程序设计方法 Introduction to Computer Science: Programming Methodology</td>
<td>选项 D Option D</td>
<td>计算机科学与 Java 程序设计导论 Introduction to Computer Science and Java Programming</td>
</tr>
<tr>
<td>选项 E Option E</td>
<td>概率及统计 （一） Probability and Statistics I</td>
<td>选项 F Option F</td>
<td>概率论基础 Probability</td>
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### 力学 Mechanics

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<th>选项 G Option G</th>
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## 必修科目 Major Required Courses

| 学生自主习题讨论班（一） Student Oriented Learning I | 普通物理实验室（一） Physics Laboratory I |
| 普通物理实验（二） Physics Laboratory II | 热力学 Thermodynamics |
| 学生自主习题讨论班（二） Student Oriented Learning II | 数学物理方法（一） Mathematical Methods in Physics I |
| 计算物理（一） Computational Physics I | 普通物理实验（三） Physics Laboratory III |
| 理论力学（一） Classical Mechanics I | 实验物理课程（一） Experimental Physics Project Experience |
| 电磁学（一） Electromagnetic Theory I | 量子力学（一） Quantum Mechanics and its Applications I |
| 研讨班（一） Seminar I | 毕业课程（一） Senior Project I |
| 普通物理（二） ( 热学和电磁学) Principles of Physics II (thermodynamics and EM) | 普通物理（三） (光学和现代物理) Principles of Physics III (Optics and Modern Physics) |

## 选修科目 Major Elective Courses

- 普通生物 General Biology
- 电磁学（一） Electrodynamics I
- 理论力学（二） Classical Mechanics II
- 实验物理课程（二） Experimental Physics Project Experience II
- 计算物理（一） Computational Physics Project Experience I
- 研讨班（二） Seminar II
- 毕业课程（二） Senior Project II
- 简体物理及应用 Statistical Mechanics and its Applications
- 高等数学课程 Advanced Mathematical Methods in Physics
- 固体物理 Solid-State Physics
- 电磁学（二） Electrodynamics II
- 光学晶体简介 Introduction to Photonic Crystals
- 实验物理课程（三） Experimental Physics Project Experience III
- 理论物理课程（二） Theoretical Physics Project Experience II
- 计算物理（二） Computational Physics II
- 纳米科学与技术专题 Topics in Nanoscience and Technology
- 相对论 Relativity
- 理论与现代物理 Nuclear and Particle Physics
- 软物质和活性物质物理 Soft and Active Matter Physics
- 材料表征方法 Methods of Materials Characterization

*更新至2024年1月 Updated to January 2024

Scan the QR code to view study scheme
化学
Chemistry

化学是自然科学的中心学科，是连接科学与工程技术所必需的现代自然科学中具有重要影响力的一个领域。化学作为一门研究物质的性质、组成、结构、转化和应用的科学，是人类发现和创造新物质的主要手段。化学是社会进步的基础，是调节生命过程和提高人体素质的重要手段之一，为人类创造丰富的物质生活。化学是唯一一门可以创造或识别对社会具有重要意义的新物质的学科。化学与社会多方面需求有关，能满足人们衣、食、住、行和增进健康、战胜疾病的需要，是现代社会中国民经济的重要支柱。

本专业旨在为学生组织提供严谨且完整的现代化学基本训练。课程设计重视学生的实验技能训练，必修科目均将配上有相关的实验科目。完成本课程的学生将在理论和应用方面打下坚实的基础，并具备良好的动手操作能力及相关的分析和解决问题的能力。

Chemistry is a central subject of natural science and one of the most influential areas of modern natural science necessary for connecting scientific and engineering technology. Chemistry is a branch of science that bridges the past and the future, and plays a fundamental, leading and promotional role in the development of related disciplines. As a scientific study of the properties, composition, structure, transformation and application of matter, chemistry is the primary means of discovering and creating new substances. Chemistry is a cornerstone of social progress and one of the important means to regulate biological processes and improve human health. Chemistry is the only science to create or identify novel chemical entities of importance to the society. We can enjoy a high-quality material life and have our needs in various aspects satisfied, including clothing, food, accommodation, transport, health improvement and disease control, all thanks to chemistry. It has become an important supporting pillar of every country's economy in modern society.

This program intends to provide undergraduates with well-structured, exhaustive, and fundamental training in modern chemistry. The program will place a considerable emphasis on cultivating students' laboratory skills and supplement compulsory chemistry courses with relevant laboratory courses. When the students successfully complete the program, they will have acquired a rigorous foundation in the theory and application, a solid command of the practical experimental and the ability to tackle simple applications of theoretical analysis and practical experimental operation, to understand, explain and solve problems.
肖志刚 SHUAI, Zhigang  
副院长（科研）、校长助理讲座教授  
Professor/Associate Dean (Research), X.Q. Deng Presidential Chair

黄乃正 WONG, Nai Ching Henry  
校长助理讲座教授  
Professor/Associate Dean (Research), X.Q. Deng Presidential Chair

梁永波 LEUNG, Wing Por Kevin  
教授  
Professor

Daiyo Miyajima  
教授  
Professor

彭小水 PENG, Xiaoshui  
副教授  
Associate Professor

柯志海 KE, Zhihai  
助理教授、本科专业负责人  
Assistant Professor, Program Director
## 学院课程 School Package

<table>
<thead>
<tr>
<th>普通化学 General Chemistry</th>
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## 必修科目 Major Required Courses

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<td>高分子化学 Polymer Chemistry</td>
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<tr>
<td>材料科学与工程导论 Introduction to Materials Science and Engineering</td>
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## 选修科目 Major Elective Courses

- 普通生物 General Biology
- 高等分析化学及实验 Advanced Analytic Chemistry and Experiments
- 光谱学 原子光谱和色谱学 Fundamentals of Spectroscopy, Microscopy and Chromatography
- 高等物理化学 Advanced Physical Chemistry
- 高等物理化学 (结构化学) Advanced Physical Chemistry (Structural Chemistry)
- 功能材料导论 Introduction to Functional Materials
- 过渡金属与配位化学 Transition Metals and Coordination Chemistry
- 高等有机合成实验 Advanced Organic Synthesis Laboratory
- 金属有机合成及催化 Organometallocic Chemistry and Catalysis
- 现代有机合成 Modern Organic Synthesis
- 固体化学 Solid State Chemistry
- 化学动力学与催化 Chemical Kinetics and Catalysis
- 专门研究课题 Undergraduate Special Project (alternative)
- 毕业论文设计 Undergraduate Thesis (alternative)
- 药物化学 Medicinal Chemistry
- 无机化学 Inorganic Chemistry
- 化学物理学 Chemical Physics
- 材料化学 Materials Chemistry
- 材料物理材料 Physics
- 材料的微结构演变 Microstructural Evolution in Materials
- 材料的磁学、光学、磁学性质 Electrical, Optical and Magnetic Properties of Materials
- 工程经济与管理 Engineering Economics and Management
- 化工原理 Principles of Chemical Engineering
- 纳米材料 Nanoscale Materials
- 药物化学与实验 Medicinal Chemistry and Laboratory
- 理论力学（一） Quantum Mechanics and its Applications I
- 固体物理 Solid-State Physics
- 理论力学 Quantum Mechanics

*更新至2024年1月 Updated to January 2024

Scan the QR code to view study scheme
Materials Science and Engineering

The major of Materials Science and Engineering aims to cultivate talents with remarkable academic performance and practical ability in materials-related fields. This program will provide students with rigorous and complete basic training in modern materials science, so that students can master the core knowledge system of Materials Science and Engineering, know the ideas and methods of how materials science understand the world and correctly recognize the importance and potential development of this major. By doing so, it allows students to have a broad and solid knowledge foundation, the ability to learn independently and a sense of innovation, as well as the ability to participate in scientific research.

Materials Science and Engineering is one of the key construction disciplines of Guangdong Province in The Chinese University of Hong Kong, Shenzhen. It has established a full academic structure of "Bachelor-Master-Doctoral-Postdoctoral" and has gathered a group of world-class high-level talents with rich teaching and research experience. After graduation, students can go to world-renowned universities or institutions for postgraduate study or research. Or they can choose to go to enterprises, companies and schools to engage in scientific research, technological development, education and management in various fields, such as chemical, petrochemical, metallurgy, electronics, materials, energy, environmental protection, commodity inspection, medicine, public security, foreign trade, national defense and other related fields.

师资代表 Faculty Representatives

唐本忠 TANG, Ben Zhong
校校长勤讲座教授、校长
X.Q. Deng Presidential Chair Professor, Dean

中国科学院院士、亚太材料科学院院士、发展中国家科学院院士

研究领域：材料科学；高分子化学；生物医学诊疗等；唐教授是材料材料科学领域的提出者和该领域研究的引领者

Member of the Chinese Academy of Sciences, Academician of the Asia Pacific Academy of Materials, Fellow of the World Academy of Sciences for the Advancement of Science in Developing Countries

Ph.D. (Kyoto University)

Research field: Materials science, macromolecular chemistry, and biomedical theranostics. His lab is spearheading the scientific research on aggregation-induced emission.
朱世平 ZHU, Shiping
副校长（外事及学生事务）、校长讲座教授
Professor

研究领域：高分子合成；聚合反应工程；环境友好型反应；高分子复合材料；聚合物纳米纤维；聚合物基复合材料；高分子材料

张 constitutional ZHANG, Qi
副教授（外事），助理教授
Assistant Professor

研究领域：高分子合成与功能材料

王明锋 WANG, Mingfeng
教授
Professor

研究领域：高分子合成与功能材料；有机光电子学；纳米医学

赵征 ZHAO, Zheng
助理教授
Assistant Professor

研究领域：智能高分子；聚合反应工程；胶体与界面科学

郑庆彬 ZHENG, Qingbin
助理教授
Assistant Professor

研究领域：纳米复合材料；透明导电膜；多功能柔性传感器；材料表面与界面；纳米复合材料；分子模拟

朱贤 ZHU, He
助理教授，本科专业负责人
Assistant Professor, Program Director

研究领域：金属有机框架材料；高分子；多孔材料
学院课程 School Package

普通化学 General Chemistry

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必修科目 Major Required Courses

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工程经济与管理 Engineering Economics and Management

综合化学实验（无机及分析化学） Comprehensive Chemistry Laboratory

必修科目 Major Required Courses

| 光谱学、显微学、色谱学基础 Fundamentals of Spectroscopy, Microscopy and Chromatography |
| 材料科学与工程导论 Introduction to Materials Science and Engineering |
| 材料的电学、光学及磁学性质 Electronic, Optical, and Magnetic Properties of Materials |
| 高分子化学与反应工程 Polymer Chemistry and Reaction Engineering |

选修科目 Major Elective Courses

- 普通生物 General Biology
- 有机化学 Organic Chemistry
- 物理化学 Physical Chemistry
- 分析化学 Analytical Chemistry
- 无机化学 Inorganic Chemistry
- 生物化学 Biochemistry
- 化学动力学与催化 Chemical Kinetics and Catalysis
- 药物化学 Medicinal Chemistry
- 化学生物学 Chemical Biology
- 能源材料 Materials for Energy Applications
- 复变函数 Complex Variables
- 材料微结构的演变 Microstructural Evolution in Materials
- 玻璃导论 Introduction to Ceramics
- 环境材料 Environmental Materials
- 计算材料 Computational Materials
- 电子与光子材料与器件实验 Electronic and Photonic Materials and Devices Laboratory
- 设计与制造中的材料选择 Materials Selection in Design and Manufacturing
- 高分子物理与加工 Polymer Physics and Processing
- 结构材料导论 Introduction to Structural Materials
- 制备技术 & 造孔材料 Nanostructured Materials
- 农用材料与设备 Surface Science and Interfacial Engineering
- 产品工程与过程建模 Product Engineering and Process Modelling
- 分离工程与单元操作 Separation Engineering and Unit Operations
- 电磁学 Electricity and Magnetism
- 电子学 - 电气与电子工程 Electrical and Electronic Engineering
- 半导体器件物理 Physics of Semiconductors Devices
- 光电子与光波 Electrophotonics
- 量子力学 - 量子力学与量子计算 Quantum Mechanics and Quantum Computation
- 固态物理 Solid-State Physics
- 电子动力学与光电子技术 Electronic and Optical Technology
- 光子学与量子材料 Photonics and Quantum Materials
- 量子力学 Quantum Mechanics

*更新至2024年1月 Updated to January 2024

Scan the QR code to view study scheme

16 Undergraduate Program
New Energy Science and Engineering

With the progress of science and technology in the energy area, promoting clean and efficient usage of energy and accelerating the industry upgrading of the energy market have become the new concerns of the energy field. Thanks to the rapid development of the internet, interdisciplinary technologies are now changing the operation mode of our society. Therefore, academia has proposed to “build a smarter planet” and a cutting-edge notion of “smart energy” in the energy area, by merging the internet with energy production, transmission, storage, consumption as well as energy market. At the same time, President Xi Jinping proposed that our country would strive to reach the “carbon peak” by 2030 and realize the “carbon neutrality” by 2060, and undertake the global responsibility and historical mission of carbon reduction. Since 80% of the total carbon emissions are from energy consumption sources, the development of new energy technologies will play a key role in achieving the strategic goals of carbon peak and neutrality in our country.

The School of Science and Engineering is now actively cooperating with well-known domestic and overseas universities for the “3+1+1” Joint Program of New Energy Science and Engineering (NSE). The NSE program is also offering a “Final Year Project” to train students’ independent practical and researching abilities, which can greatly benefit them for their further study or career. NSE graduates will be able to work in emerging fields of new energy, including renewable energy, smart grid, new energy vehicles, as well as colleges and research institutes to engage in related research.

The NSE program is highly interdisciplinary, students can choose to pursue further studies in the direction of new energy science or new energy engineering according to their interests.
本专业提供两个专修方向 NSE program provides two streams

新能源科学
New Energy Science

新能源科学以数学、物理、化学和材料科学的经典课程为立足点，引入光电子学、催化化学、能量储存与转化等现代前沿领域的最新进展，重点讲述新能源特别是可再生能源的开发与利用。通过理论课程和实验实践的有机结合，抓住“双碳”目标的历史机遇，新能源科学方向将培养具有扎实自然科学知识、国际视野、创新精神，实践能力的复合型人才。毕业生将能够在光伏材料、储能、电动汽车、显示技术等新能源相关领域发挥才能，实现个人理想和社会价值。

Based on the classic courses of mathematics, physics, chemistry, and materials science, this stream will introduce the latest progress in frontier research areas, such as optoelectronics, catalytic chemistry, energy storage, and energy conversion, with a focus on the development and utilization of new energy, especially renewable energy. Through the combination of lectures and experiments, students will receive solid training in natural sciences and equip with international vision, innovative spirit, and comprehensive abilities. Graduates in this stream will be ready to contribute to the strategic goals of carbon peak and neutrality, and fulfill their talents in job markets of photovoltaics, energy storage, electric vehicles, display technology, etc.

新能源工程
New Energy Engineering

新能源工程方向侧重于探索“智慧能源系统”这一新兴能源发展新形态，除电力系统、电机学、电力电子、新能源材料等课程外，还将学习集成电路、信号系统、高级统计学、人工智能等课程，将新能源学习与数据计算技术结合，让学生能够平衡智慧能源系统所需的能源与信息技术方面的训练，并适应目前就业市场对能源方向复合型人才的需求。毕业生将具备结合新能源与信息科学等跨学科技能的能力，在光伏、智能电网、电动汽车、储能、工业互联网等行业具有广阔的就业前景。

The stream of new energy engineering aims to explore the “smart energy system”, which is the new form of energy development. In addition to the electric power system, electrical machinery, power electronics, new energy materials, students will also study courses including integrated circuits, signal systems, advanced statistics, artificial intelligence, etc. The combination of new energy knowledge and data computing technology guarantees a balance training of energy and information technology, which are both needed for the smart energy system and can meet the demand in the energy-related industries. With the interdisciplinary skills of new energy engineering and information science, graduates in the new energy engineering stream will become competitive candidates in the job market of photovoltaics, smart grids, electric vehicles, energy storage, industrial internet, and other fields.
Faculty Representatives

赵俊华 ZHAO, Junhua
Associate Professor, Program Director

丘子杰 QIU, Zijie
Assistant Professor, Program Director

纪冬旭 JI, Dongxu
Assistant Professor

雷顺波 LEI, Shunbo
Assistant Professor

唐晓蕾 TANG, Xiaoying
Assistant Professor

吴辰晔 WU, Chenye
Assistant Professor, MPhil-PhD Program Director

王璐 WANG, Lu
Assistant Professor, MPhil-PhD Program Director

President Young Fellow
Ph.D. (The University of Queensland)
Research field: Power system analysis and computation, smart grid, data mining, artificial intelligence, electricity market

President Young Fellow
Ph.D. (The University of Science and Technology)
Research field: Organic functional materials, polymer synthesis, organic chemistry

President Young Fellow
Ph.D. (Nanyang Technological University)
Research field: Low grade thermal energy utilization, geothermal energy, Air thermal energy, etc.

Ph.D. (The University of Hong Kong)
Research field: Power & energy systems, grid-interactive efficient buildings, infrastructure resilience, optimization, machine/reinforcement learning

Ph.D. (The Chinese University of Hong Kong)
Research field: Online scheduling and distributed algorithm design and optimizations for smart grid, edge computing and other cyber-physical systems, fundamental research in machine learning algorithm and artificial intelligence

President Young Fellow
Ph.D. (Institute for interdisciplinary Information Sciences, Tsinghua University)
Research field: Smart energy systems/machine/reinforcement learning

President Young Fellow
Ph.D. (Nanyang Technological University)
Research field: Photothermal catalysis and electrocatalysis

President Young Fellow
Ph.D. (The University of Science and Technology)
Research field: Organic functional materials, polymer synthesis, organic chemistry

President Young Fellow
Ph.D. (Nanyang Technological University)
Research field: Low grade thermal energy utilization, geothermal energy, Air thermal energy, etc.

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President Young Fellow
Ph.D. (Institute for interdisciplinary Information Sciences, Tsinghua University)
Research field: Smart energy systems/machine/reinforcement learning

President Young Fellow
Ph.D. (Nanyang Technological University)
Research field: Photothermal catalysis and electrocatalysis
### 学院课程 School Package

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### 必修科目 Major Required Courses

#### 新能源科学方向 New Energy Science Stream

| 化学实验 Chemistry Laboratory | 物理化学 Physical Chemistry |
| 电化学能量转换 Electrochemical Energy Conversion | 能源应用材料 Materials for Energy Applications |
| 能量转换过程 Energy Conversion Processes | 物理实验 Physics Laboratory |
| 毕业设计 (一) Capstone Project I | 光电子学 Optoelectronics |
| 电磁学 Electricity and Magnetism | 能源科学与工程实验室 Energy Science and Engineering Laboratory |
| 材料科学与工程导论 Introduction to Materials Science and Engineering | 太阳能转换系统设计 Design of Solar Energy Conversion Systems |

#### 新能源工程方向 New Energy Engineering Stream

| 电子线路设计实验 Electronic Circuit Design Laboratory | 基本电路理论 Basic Circuit Theory |
| 电力系统 Electrical Power Systems | 能量转换过程 Energy Conversion Processes |
| 电力电子 Power Electronics | 毕业设计 (一) Capstone Project I |
| 常微分方程 Ordinary Differential Equations | 物理实验 Physics Laboratory |
| 电磁学 Electricity and Magnetism | 概率及统计 (二) Probability and Statistics II |
| 信号与系统 Signals and Systems | 能源科学与工程实验室 Energy Science and Engineering Laboratory |

### 选修科目 Major Elective Courses

- 普通生物学 General Biology
- 物理化学 Physical Chemistry
- 分析化学 Analytical Chemistry
- 无机化学 Inorganic Chemistry
- 有机化学 (一) Organic Chemistry I
- 功能材料导论 Introduction to Functional Materials
- C/C++程序设计 C/C++ Programming
- 操作系统 Operating System
- 机器学习 Machine Learning
- 基本电路理论 Basic Circuit Theory
- 信号与系统 Signals and Systems
- 系统与控制 System & Control
- 新能源工程原理 Principles of Energy Engineering
- 新能源系统的热质传输 Heat and Mass Transfer for Energy Systems
- 太阳能转换系统设计 Design of Solar Energy Conversion Systems
- 电化学能量转换 Electrochemical Energy Conversion
- 能源应用材料 Materials for Energy Applications
- 能源科学与工程实验室 Energy Science and Engineering Laboratory
- 绿色工程及环境标准 Green Engineering and Environmental Compliance
- 资源与环境 Energy Resources and the Environment
- 能源经济 Energy Economics
- 电力电子 Power Electronics
- 电力系统稳定性及控制 Power System Stability and Control
- 电力系统规划 Power System Planning
- 智能电网 Smart Grid
- 电力市场 Electricity Market
- 电机学 Electrical Machines
- 数据解析导论 Introduction to Data Analytics
- 毕业设计 (二) Capstone Project II
- 常微分方程 Ordinary Differential Equations
- 最优化 Optimization
- 最优化 (二) Optimization II
- 材料微结构的演变 Microstructural Evolution of Materials
- 材料的电学、光学及磁学性质 Electronic, Optical, and Magnetic Properties of Materials
- 纳米材料 Nanostructured Materials
- 半导体与器件 Semiconductors and Devices
- 热力学 Thermodynamics
- 流体力学 Fluid Mechanics
- 电力学 (一) Electromagnetics I
- 光电子学 Optoelectronics
- 概率及统计 (二) Probability and Statistics II
- 随机过程 Stochastic Processes

*更新至2024年1月 Updated to January 2024

Scan the QR code to view study scheme
电子与计算机工程
Electrical and Computer Engineering

电气与计算机工程属于前沿专业，以教授电子信息和计算机工程的基本知识和技能为主，学生们将有许多机会在课堂上和实验室里与教师和研究人员进行交流学习。同时，本专业也将利用深圳互联网、通信等电子信息产业的优势，为学生提供与业界交流的机会，使得学生能更好地掌握行业动态并具备创新创业的能力。

本专业旨在培养具有国际视野，具备现代电子技术理论，熟悉掌握计算机工程、信息传输、储存、处理与分析的原理及技术，发挥创意开发原型并将技术转移到商业产品中的高素质创新人才。毕业生既可在国内外学术领域深造学习，也可在计算机、电子、信息、金融、制造等产业或政府机构就业发展，从事研发或管理工作。

Electrical and Computer Engineering (ECE) is a cutting-edge program that teaches the basic knowledge and skills of electronic information and computer engineering. Students will also have many opportunities to communicate and learn with world-renowned professors and leading industry practitioners inside and outside the classroom. Also, ECE program will take advantages of the local industry in the Internet, communications and other electronic information areas to provide students with ample opportunities to interact with the local industry, which helps our students to better understand the industry trends and be equipped with entrepreneurship ability.

This program aims to cultivate innovative and entrepreneurial talents with international vision, and is designed to teach its students modern electronic technology, the principles and practice of computer engineering, information transmission and storage, signal processing and analysis, prototype development and technology transfer to commercial products. The well-rounded education will enable graduates to further their studies at domestic and foreign graduate schools, as well as practice their profession in the industry such as computers, electronics, information, finance, manufacturing and government agency management.
ECE program provides two streams

A  计算机工程  
Computer Engineering

计算机工程侧重于计算机系统实践与应用，覆盖人工智能、机器人技术、计算机网络、图形图像处理、软件工程、计算机辅助设计、系统安全等专业技术内容，提供前沿产业领域选修课程，包括 WEB3、区块链、元宇宙、人机交互、云计算、嵌入式系统、物联网、互联网与移动计算等。

CE stream focuses on the practice and application of computer systems, covering cloud computing, artificial intelligence, robotics, computer networks, image processing, computer-aided design, computer system security, embedded computer systems, etc. It provides elective courses in cutting-edge industry fields including Web3, blockchain, metaverse, human-computer interaction, cloud computing, embedded systems, Internet of Things (IoT), etc.

B  电子工程  
Electronic Engineering

电子工程主要必修课程包括电路理论及实验、信号与系统、微处理器、通信原理、数据结构等。同时在电路与器件、通信与网络、信号处理与信息安全等多个领域提供丰富的选修课程，包括无线通信、计算机网络、集成电路、信号处理、机器人应用等。

The major required courses of EE stream include circuit theory and laboratory, signal and system, microprocessor, communication principle, data structures, etc. It also provides elective courses in various fields such as circuits and devices, communications and networks, signal processing and information security, including wireless communications, computer networks, integrated circuits, signal processing and robotics and so on.
常瑞华 Connie Chang-Hasnain
校长学勤讲座教授
X.Q. Deng Presidential Chair Professor

中国工程院外籍院士，美国国家工程院院士，国际电气和电子工程师学会会士，美国光学学会会士。加州大学伯克利分校博士。研究领域：纳米结构材料的合成、性质和器件；宽带光学通信；VCSEL；光学微机电结构

崔曙光 CUI, Shuguang
校长学勤讲座教授
X.Q. Deng Presidential Chair Professor

加拿大皇家科学院院士，加拿大工程院院士，国际电气和电子工程师学会会士。加诺维大学博士。研究领域：数据分析和信息系统

张瑞 ZHANG, Rui
校长学勤讲座教授
X.Q. Deng Presidential Chair Professor

新加坡工程院院士、国际电气和电子工程师学会会士、全球高被引科学家。新加坡国立大学博士。研究领域：无线电通信

黄建伟 HUANG, Jianwei
协理副校长（学生事务）、校长讲座教授
Associate Vice President (Institutional Development), Presidential Chair Professor

国际电气和电子工程师学会会士，国际电气和电子工程师学会会士，全球高被引科学家。俄亥俄州立大学博士。研究领域：群体智能；网络优化和经济学

甘培润 KAM, Pooi-Yuen
教授
Professor

国际电气和电子工程师学会会士。亚太人工智能学会会士、新加坡工程学会会士。麻省理工学院博士。研究领域：通信理论与系统；统计与应用数学

梁家伟 LEUNG, Clement
教授
Professor

英国计算机协会会士、皇家文艺、商业、工艺学会会士、伦敦大学学院博士。研究领域：深度学习，深度学习；强化学习

黄锐 HUANG, Rui
副教授
Associate Professor

校长青年学者。南加州大学博士。研究领域：计算机视觉；图像处理；模式识别；机器学习

潘文安 PUN, Simon
副教授
Associate Professor

南加州大学博士。研究领域：智能物联网；机器学习；卫星遥感

Undergraduate Program 23
师資代表 Faculty Representatives

许杰 XU, Jie
助理院长（科研）、副教授
Assistant Dean (Research), Associate Professor

校长学者
中国科学技术大学博士
研究领域：无线通信；无线能量传输；无人机通信；移动边缘计算与机器学习
Presidential Fellow
Ph.D. (University of Science and Technology of China)
Research field: Wireless communications, wireless power transfer, UAV communications, and mobile edge computing and machine learning

杨升浩 YANG, Shenghao
副教授，专业负责人
Associate Professor, Program Director

校长青年学者
香港中文大学博士
研究领域：信号处理；编码理论；网络编码；网络计算
Presidential Young Fellow
Ph.D. (The Chinese University of Hong Kong)
Research field: Information theory, coding theory, network coding, network computation

张纵辉 CHANG, Tsung-Hui
助理院长（教育）、副教授
Assistant Dean (Education), Associate Professor

校长学者，国际电气及电子工程师学会会士
台湾清华大学博士
研究领域：无线通信与机器学习中的关键信号处理与优化方法
Presidential Fellow, IEEE Fellow
Ph.D. (National Tsing Hua University)
Research field: Signal processing and optimization methods for wireless communications and machine learning

蔡玮 CAI, Wei
助理教授
Assistant Professor

校长青年学者
加拿大不列颠哥伦比亚大学博士
研究领域：元宇宙；区块链；游戏；人机交互；云中心化金融/游戏金融；用户内容生成；计算艺术
Presidential Young Fellow
Ph.D. (The University of British Columbia)
Research field: Metaverse, blockchain, game, human-computer interaction, cloud finance, user content generation, computational art

林天麟 LAM, Tin Lun
助理教授，专业负责人
Assistant Professor, Program Director

校长青年学者，国际电气及电子工程师学会高级会员
香港中文大学博士
研究领域：多机器人系统；野外机器人；协作机器人
Presidential Young Fellow, IEEE Senior Member
Ph.D. (The Chinese University of Hong Kong)
Research field: Multi-robot systems, field robotics, collaborative robotics

俞江帆 YU, Jiangfan
助理教授
Assistant Professor

校长青年学者
香港中文大学博士
研究领域：微/纳米机器人；医疗机器人；生物医学
Presidential Young Fellow
Ph.D. (The Chinese University of Hong Kong)
Research field: Micro/nanorobotics, medical robotics, biomedicine
## 学院课程 School Package

### 普通化学 General Chemistry
- 选项 A Option A: 线性代数 Linear Algebra
- 选项 B Option B: 线性代数荣誉课程 Honours Linear Algebra

### 微积分（一） Calculus I
- 选项 C Option C: 计算机科学导论：程序设计方法 Introduction to Computer Science: Programming Methodology
  - 计算机实验 Computational Laboratory
- 选项 D Option D: 计算机科学与 Java 程序设计导论 Introduction to Computer Science and Java Programming
  - Java 程序设计实验 Experimental Laboratory Using Java

### 力学 Mechanics
- 选项 E Option E: 概率及统计 (一) Probability and Statistics I
- 选项 F Option F: 概率论基础 Probability

## 必修科目 Major Required Courses

### 计算机工程方向 Computer Engineering Stream

| C/C++ 程序设计 C/C++ Programming | 计算机体系结构 Computer Architecture | 人工智能之基本原理 Fundamentals of Artificial Intelligence |
| 数据结构 Data Structures | 操作系统 Operating Systems | 数字系统设计实验 Digital Systems Design Laboratory |
| 数据库系统 Database System | 毕业设计 (一) Capstone Project I | 数字逻辑与系统 Digital Logic and Systems |
| 微型处理及计算机系统 Microprocessors and Computer Systems | 微型处理系统设计实验 Microprocessor System Design Laboratory |

### 电子工程方向 Electronic Engineering Stream

| 数据结构 Data Structures | 信号与系统 Signals and Systems | 电子线路设计实验 Electronic Circuit Design Laboratory |
| 基本电路理论 Basic Circuit Theory | 物理实验 Physics Laboratory | 数字逻辑与系统 Digital Logic and Systems |
| 毕业设计 (一) Capstone Project I | 通信系统原理 Principles of Communication Systems | 数字系统设计实验 Digital Systems Design Laboratory |
| 微型处理及计算机系统 Microprocessors and Computer Systems | 微型处理系统设计实验 Microprocessor System Design Laboratory |

### 选修科目 Major Elective Courses

- 普通生物学 General Biology
- 生物信息学 Bioinformatics
- 遗传学 Discrete Mathematics
- C/C++程序设计 C/C++ Programming
- 计算机体系结构和计算机组成设计 Computer Architecture and Design
- 操作系统 Operating Systems
- 数字系统设计实验 Digital Systems Design Laboratory
- 微型处理及计算机系统 Microprocessors and Computer Systems
- 微型处理系统设计实验 Microprocessor System Design Laboratory
- 线性代数 Linear Algebra
- 线性代数荣誉课程 Honours Linear Algebra
- 计算机科学导论：程序设计方法 Introduction to Computer Science: Programming Methodology
- 计算机实验 Computational Laboratory
- 计算机科学与 Java 程序设计导论 Introduction to Computer Science and Java Programming
- Java 程序设计实验 Experimental Laboratory Using Java
- 数学分析导论 Probability and Statistics I
- 概率论基础 Probability
- 高等代数 Linear Algebra
- 线性代数 Honours Linear Algebra
- 计算机体系结构 Computer Architecture
- 操作系统 Operating Systems
- 数字系统设计实验 Digital Systems Design Laboratory
- 微型处理及计算机系统 Microprocessors and Computer Systems
- 微型处理系统设计实验 Microprocessor System Design Laboratory
- 人工智能之基本原理 Fundamentals of Artificial Intelligence
- 数字逻辑与系统 Digital Logic and Systems
- 电子线路设计实验 Electronic Circuit Design Laboratory
- 基本电路理论 Basic Circuit Theory
- 数字逻辑与系统 Digital Logic and Systems
- 电子线路设计实验 Electronic Circuit Design Laboratory

- 计算机科学导论：程序设计方法 Introduction to Computer Science: Programming Methodology
- 计算机实验 Computational Laboratory
- 计算机科学与 Java 程序设计导论 Introduction to Computer Science and Java Programming
- Java 程序设计实验 Experimental Laboratory Using Java
- 数学分析导论 Probability and Statistics I
- 概率论基础 Probability
- 高等代数 Linear Algebra
- 线性代数 Honours Linear Algebra
- 计算机体系结构 Computer Architecture
- 操作系统 Operating Systems
- 数字系统设计实验 Digital Systems Design Laboratory
- 微型处理及计算机系统 Microprocessors and Computer Systems
- 微型处理系统设计实验 Microprocessor System Design Laboratory
- 人工智能之基本原理 Fundamentals of Artificial Intelligence
- 数字逻辑与系统 Digital Logic and Systems
- 电子线路设计实验 Electronic Circuit Design Laboratory
- 基本电路理论 Basic Circuit Theory
- 数字逻辑与系统 Digital Logic and Systems
- 电子线路设计实验 Electronic Circuit Design Laboratory

*更新至2024年1月 Updated to January 2024

扫割查看专业课程修读计划 Scan the QR code to view study scheme
Financial Engineering

Offered jointly with SME and SDS

The program is set up to meet the finance industry's demand for graduates with strong quantitative and analytical skills who have the potential to become leaders in the finance industry. Graduates are also equipped with sound financial modelling and forecasting skills, and are ideally suited to positions and tasks that require strong quantitative and analytical skills such as valuation, portfolio analysis, asset allocation, credit analysis, risk modelling, and structured finance. This program also provides a good foundation for careers in investment banking, commercial and corporate banking, and financial services.

本课程提供以下两个专修方向

FE program provides two streams

量化金融
Quantitative Finance

金融科技
FinTech
### 学院课程 School Package

#### 经管学院 School of Management and Economics (SME)
- 财务会计导论 Introductory Financial Accounting
- 微观经济学基础 Basic Microeconomics
- 财务管理 Financial Management
- 金融基础 Foundation of Finance

#### 理工学院 School of Science and Engineering (SSE)
- 微积分 (一) Calculus I
- 微积分 (二) Calculus II
- 线性代数 Linear Algebra

#### 数据科学学院 School of Data Science (SDS)
- 计算机科学导论：程序设计方法 Introduction to Computer Science: Programming Methodology
- 计算机实验 Computational Laboratory
- 概率及统计 (一) Probability and Statistics I

### 必修科目 Major Required Courses

#### 量化金融方向 Quantitative Finance Stream
- 金融科技理论与实践 Fintech Theory and Practice
- 常微分方程 Ordinary Differential Equations
- 数学建模 Mathematical Modeling
- 金融经济导论 Introductory Econometrics
- 投资分析与投资组合管理 Investment Analysis and Portfolio Management
- 固定收益证券分析 Fixed Income Securities Analysis Computational Finance

#### 金融科技方向 FinTech Stream
- 离散数学 Discrete Mathematics
- 计量经济学导论 Introductory Econometrics
- 最优化 Optimization
- 金融科技理论与实践 Fintech Theory and Practice
- 投资分析与投资组合管理 Investment Analysis and Portfolio Management

### 选修科目 Major Elective Courses
- 中国法律环境: 商业道德与企业社会责任 Legal Environment, Business Ethics and CSR in China
- Java程序设计导论 Introduction to Java Programming
- 数据分析 Data Analysis
- C/C++程序设计 C/C++ Programming
- 数据结构 Data Structures
- 操作系统 Operating System
- 数据库系统 Database System
- 人工智能基本原理 Fundamentals of Artificial Intelligence
- 数据挖掘技术 Techniques for Data Mining
- 机器学习 Machine Learning
- 高级机器学习 Advanced Machine Learning
- 应用概率与随机过程 Applied Probability and Stochastic Process in Business
- 博弈论与商务战略 Game Theory
- 计算机与网络安全 Computer and Network Security
- 网络分析与智能 Web Analytics and Intelligence
- 中国与世界的金融市场 Financial Markets in China and the World
- 行为金融学 Behavioral Finance
- 风险管理 Risk Management
- 期权与期货 Options and Futures
- 固定收益证券分析 Fixed Income Securities Analysis
- 金融公司 Corporate Finance
- 资产定价 Asset Pricing
- 金融科技 Fintech
- 金融工程 Financial Engineering
- 随机过程 Stochastic Process
- 时间序列 Time Series
- 金融工程实践 Financial Engineering Practice
- 风险管理与衍生品应用 Risk Management with Derivatives
- 散点图 Regressions Analysis
- 市场分析 Market Analysis
- 市场营销 Marketing

*更新至2024年1月 Updated to January 2024

Scan the QR code to view study scheme

Undergraduate Program 27
通信工程理学硕士专业
Master of Science in Communications Engineering

香港中文大学（深圳）通信工程理学硕士项目是围绕通信工程领域开设的为期两年的全日制硕士项目，涵盖 5G 和后 5G 通信与网络、无线通信、机器学习、物联网、云计算、边缘计算、大数据系统和分析处理等多种新兴热门技术领域知识，旨在培养学生关于信息数据采集、传输和处理的全方位能力。

本项目顺应时代发展趋势，开设了包括通信基础理论和行业前沿科技在内的课程，同时在每个学期均设立循序渐进的研究项目，引导学生将专业知识娴熟应用于科学研究和实践当中，充分发挥自主能动性与创新思维，综合培养学生服务于科技发展、工业生产与社会生活的能力。毕业生将成为兼具行业理论与实践的专业型复合人才，以开拓的国际视野和扎实的实操技能快速适应瞬息万变的行业形势与市场需求。

Master of Science in Communications Engineering (MSc. CE) is a two-year full-time program offered by CUHK-Shenzhen revolving around the area of communication engineering. The program aims to equip students with essential knowledge and skills that enable them to develop and implement solutions to harvesting, transmission, and processing of data and information, with a wide coverage of emerging technology such as 5G and beyond communications and networks, wireless communications, machine learning, Internet of Things, cloud computing, edge computing, big data, and analytic processing.

The program aims to educate professionals with both theory and practice of communications engineering. Students who graduate from this two-year Master’s Program will learn the fundamental theory and cutting-edge methods of communications engineering over a wide range of emerging topics such as 5G and beyond communications and networks, Internet of Things (IoT), and machine learning. Students will also complete research projects demonstrating that they can use the fundamental concepts to solve problems in various communications applications.
课程设置 Curriculum

必修课（共17学分） Required Course (17 units)

随机过程 Random Process
信息论和编码 Information Theory and Channel Coding
通信系统的优化 Convex Optimization for Communication Systems
无线通信 Wireless Communications
5G和后5G通信与网络 5G and Beyond Communications and Networks
中国特色社会主义理论与实践研究（公共课） Research on the Theory and Practice of Socialism with Chinese Characteristics

核心选修（共22学分） Core Elective (22 units)

- 机器学习与智能通信 Machine Learning and Intelligent Communications
- 人工智能及其在通信中的应用 Artificial Intelligence and Applications in Communications
- 动态规划及其在通信中的应用 Dynamic Programming and Applications in Communications
- 图像处理及计算机视觉 Image Processing and Computer Vision
- 光纤通信与网络 Optical Communications and Networks
- 网络经济与系统 Network Economics
- 大数据系统与系统处理 Big Data Systems and Information Processing
- 数据分析 Data Analytics
- 网络编译理论 Network Compiling Theory
- 物联网 Internet of Things
- 多天线无线通信 Multi-Antenna Wireless Communications
- 云计算与边缘计算 Cloud Computing and Edge Computing
- 分布式系统与并行计算 Distributed Systems and Parallel Computing
- 片上系统设计 System-on-Chip (SOC) Design
- 密码学，信息安全与隐私 Cryptography, Information Security and Privacy
- 研究项目 I Research Project I
- 研究项目 II Research Project II
- 自然辩证法概论（公共课） Dialectics of Nature
- 马克思主义与社会科学方法论（公共课） Marxism and Social Science Methodology

申请条件 Application Requirements

1 学习背景 Education Background Requirements

- 取得教育部认可的本科毕业学位，且荣誉等级不低于二等；或
- 平均成绩不低于“B”；或
- 在相关行业的龙头企业有至少一年的工作经验，需提供雇主开具的有力推荐信

- Graduated from a university recognized by the Ministry of Education, P.R.C. and obtained a bachelor's degree, normally with honors not lower than Second Class, or
- Graduated from an honor program of a recognized university with a Bachelor's degree, normally achieving an average grade of not lower than "B", or
- Graduated from an honors program of a recognized university with a Bachelor's degree, and accumulated at least one-year working experience in the leading companies in related industries (with strong recommendation letters from employers)

2 语言成绩要求 English Language Requirements for Admission

- 托福：550（笔试）/79（机考/在家考）；或
- 雅思（学术）：6.5（考试中心/Online）；或
- GMAT: Band 21 (Verbal)；或
- GMAT Focus Edition: Band 78 (Verbal)；或
- TOEFL: 550 (Paper-based)/79 (Internet-based/Home Edition)；或
- IELTS (Academic): 6.5 (Test Centre based/Online)；或
- GMAT: Band 21 (Verbal)；或
- GMAT Focus Edition: Band 78 (Verbal)；或
- 获得中国香港或母语为英语国家颁发的专业资格证书
- Taken a degree program of which the medium of instruction was English (The University may require applicants to provide supporting documents), or
- Completed a recognized professional qualification of Hong Kong SAR, China or outside China, provided that the examination was conducted in English
Master of Science in Artificial Intelligence and Robotics

The fast development of computer science and engineering, artificial intelligence, and robotics techniques has helped resolve numerous problems encountered in people's daily lives and reshaped the world. Society needs more and more well-trained professionals in the field. Our Master of Science Program is therefore designed to meet the increasing demand for skilled computer science and engineering, artificial intelligence, and robotics professionals in the Guangdong-Hong Kong-Macao Greater Bay Area and the whole country. The program aims to equip all students with solid knowledge background and practical application skills necessary for their career success in the future.

M.Sc. in Artificial Intelligence and Robotics is jointly offered by the School of Science and Engineering and the School of Data Science, CUHK-Shenzhen. The program targets both students and junior professionals who wish to take advanced training in computer science and engineering, artificial intelligence, and robotics at the post-graduate level. The applicants are expected to have a solid computer science and engineering or related background. Students who graduate from this two-year Master's Program will learn fundamental theory and cutting-edge techniques over a wide range of topics in the field. Students will also conduct independent application-oriented research projects to demonstrate their problem-solving capabilities. Graduates are expected to contribute to AI and robotics research institutes and industries in the Guangdong-Hong Kong-Macao Greater Bay Area and the country.
Executive Master of Science in Supply Chain and Logistics Management

与经管学院联合开设 offered jointly with SME

Logistics has become a fast-growth industry in China, especially in the Pearl River Delta. Given the huge demand for talents with specialized knowledge and practical experience, EMSc Program in Supply Chain and Logistics Management (EMSc-SCLM) aims to educate senior executives in the supply chain and logistics industry, helping companies design creative solutions for critical issues in their supply chain and logistics. This part-time master program can teach them the state-of-art techniques for cutting down logistics costs and improving supply chain efficiencies while keeping key employees on-the-job. EMSc-SCLM is a joint program of the School of Science and Engineering and School of Management of Economics, CUHK-Shenzhen. Experienced professors from CUHK, CUHK(SZ) and famous overseas universities will serve as instructors together. EMSc-SCLM’s study time is on weekend with two-year normal study duration (3 years in maximum).

申请条件 Application Requirements

1. 大学本科毕业并获得学士学位或同等资历
   Graduated from a university with a bachelor’s degree or equivalent qualifications

2. 相关行业管理工作经验满三年 (物流/制造/零售/运输/采购/管理/咨询/销售等，不限行业)
   Three years of management experience in related industries (logistics/manufacturing/retail/transportation/purchasing/management/consulting/sales, etc., regardless of industry)
Master of Science in Computer and Information Engineering

Master of Science in Computer and Information Engineering (MSc. CIE) is a two-year full-time program offered by CUHK-Shenzhen revolving around the area of computer science and information engineering. The program aims to equip students with essential knowledge and skills that enable them to develop and implement solutions to with a wide coverage of emerging technology such as AI, AI chips and applications, computer science, advanced machine learning, blockchain and metaverse. Graduates will learn the fundamental theory and have chance to complete research projects demonstrating that they can use the fundamental concepts to solve problems in various computer and information engineering applications. The program is expected to enroll students in 2025.
必修课（共14学分） Required Course (14 units)

矩阵分析 Matrix Analysis
高级计算机网络 Advanced Computer Networks
AI芯片及应用 AI Chips and Applications
嵌入式系统及物联网 Embedded Systems and Internet of Things
中国特色社会主义理论与实践研究（公共课） Research on the Theory and Practice of Socialism with Chinese Characteristics

核心选修（共25学分） Core Elective (25 units)

- 高级机器学习 Advanced Machine Learning
- 高级计算机体系结构 Advanced Computer Architecture
- 图像处理与计算机视觉 Image Processing and Computer Vision
- 随机过程 Stochastic Process
- 数据分析 Data Analytics
- 优化理论与算法 Optimisation Theory and Algorithms
- 计算机与网络安全 Computer and Network Security
- 移动网络 Mobile Networking
- 高级无线通信 Advanced Wireless Communications
- 信息论 Information Theory
- 深度学习基础及其应用 Deep Learning Foundations and Their Applications
- 网络经济学 Network Economics
- CMOS 数字集成电路设计 CMOS Design of Integrated Circuits
- 机器人操作系统与编程 Programming for Robotics
- 区块链系统 Selected Topics in Blockchain Systems
- 云计算 Cloud Computing
- 超大规模集成电路设计 Very Large-Scale Integrated Circuit Computer-aided Design
- 自然语言处理 Natural Language Processing
- 自然辩证法概论（公共课） Dialectics of Nature
- 马克思主义与社会科学方法论（公共课） Marxism and Social Science Methodology

申请条件 Application Requirements

1 学习背景 Education Background Requirements

- 取得教育部认可的本科学历学位，并且荣誉不低于二等；或
- 平均成绩不低于 “B”；或
- 在相关行业的知名企业有至少一年的工作经验，需提供雇主开具的有力推荐信
- Graduated from a university recognized by the Ministry of Education, P.R.C., and obtained a bachelor's degree, normally with honors not lower than Second Class, or
- Graduated from an honor program of a recognized university with a Bachelor's degree, normally achieving an average grade of not lower than "B", or
- Graduated from an honor program of a recognized university with a Bachelor’s degree, and accumulated at least one-year working experience in the leading companies in related industries (with strong recommendation letters from employers)

2 语言成绩要求 English Language Requirements for Admission

- 托福：550（笔试）/79（机考/在家考）；或
- 雅思（学术）：6.5（考试中心/Online）；或
- GMAT：Band 21（Verbal）；或
- GMAT Focus Edition: Band 78（Verbal）；或
- 完成以英语授课的学位课程，香港中文大学（深圳）研究生院或要求申请人提供相关证明材料；或
- 获得中国香港或英联邦国家颁发的专业资格证书
- TOEFL: 550 (Paper-based)/79 (Internet-based/Home Edition), or
- IELTS (Academic): 6.5 (Test Centre based/Online), or
- GMAT: Band 21 (Verbal), or
- GMAT Focus Edition: Band 78 (Verbal), or
- Taken a degree program of which the medium of instruction was English (The University may require applicants to provide supporting documents), or
- Obtained a recognized professional qualification of Hong Kong SAR, China or outside China, provided that the examination was conducted in English

Taught Postgraduate Program 33
金融数学理学硕士
Master of Science in Financial Mathematics

拟新增 approval pending

香港中文大学（深圳）金融数学理学硕士项目（MSc. FMA）是围绕金融数学领域开设的为期两年的全日制硕士项目，旨在培养具有金融理论基础和高级数学应用能力的专业型复合人才。本专业涵盖金融数学相关的核心知识和方法，旨在培养同学们运用量化分析、数学建模和数据驱动等方法解决金融问题的能力。本专业毕业生将掌握量化投资、算法交易、风险管理等金融核心知识，深入学习应用数学相关的专业知识，如高等数值方法、高等概率理论与数理统计、随机与偏微分方程、高等精算学等。此外，同学们还将接触到计算机技术相关的基础理论知识和技术方法，如机器学习、人工智能金融科技等。课程设计强调跨学科的知识融合和技能训练，并提供多种研究和实践机会。本项目预计将于2025年开启招生。

Master of Science in Financial Mathematics (MSc. FMA) is a two-year full-time program offered by CUHK-Shenzhen revolving around the area of finance and mathematics, aiming to cultivate professional composite talents with a solid theoretical foundation in finance and advanced mathematical application ability. The program covers the core knowledge and methods related to financial mathematics, and aims to equip students with essential knowledge and skills to develop and implement quantitative and data-driven solutions to financial problems. Graduates of this program are expected to have gained a comprehensive understanding of the fundamental theory as well as tools and methods of financial mathematics in a broad range of emerging topics such as quantitative investment, algorithmic trading, and risk management, and in-depth study of professional knowledge related to applied mathematics, such as advanced numerical methods, advanced probability theory and mathematical statistics, stochastic and partial differential equations, advanced actuarial science, etc. In addition, students will also be exposed to basic theoretical knowledge and technical methods related to computer technology, such as machine learning, artificial intelligence for FinTech. The curriculum design emphasizes interdisciplinary knowledge integration and skills training, and provides a variety of research and practice opportunities. The program is expected to enroll students in 2025.
集成电路与系统理学硕士

Master of Science in Integrated Circuits and Systems

拟新增 approval pending

香港中文大学（深圳）集成电路与系统理学硕士项目（MSc. ICS）是围绕集成电路领域开设的为期两年的全日制硕士项目，旨在满足大湾区乃至全国对集成电路产业专业型人才的需求。本项目课程涵盖半导体物理和集成电路基础知识，并开设了围绕通讯集成电路设计、测量实验和微纳加工技术为主的实践教学课程，旨在培养学生电子器件设计、芯片设计、设计自动化、制造封装和测试的必要的知识和技能。本项目预计于2025年开启招生。

Master of Science in Integrated Circuits and Systems (MSc. ICS) at the Chinese University of Hong Kong, Shenzhen is a two-year full-time master’s program dedicated to the field of integrated circuits. It aims to meet the demand for professional talents in the integrated circuit industry within the Greater Bay Area and even across the nation. The curriculum encompasses semiconductor physics and integrated circuits, complemented by practical courses centered on communication integrated circuit design, measurement laboratory, and micro-nano manufacturing technology. The goal is to equip students with the necessary knowledge and skills in electronic device design, chip design, design automation, fabrication, packaging and testing. The program is expected to enroll students in 2025.
数学硕士-博士项目
MPhil-PhD Program in Mathematics

香港中文大学（深圳）理工学院设立数学硕士-博士项目，旨在培养学术成绩优异、思想活跃、创新意识和能力强、科研品味高、脚踏实地、有朝气、有理想、有高度进取心的数学与应用数学相关领域的高级研究型人才，所涵盖的研究领域包括偏微分方程、计算数学、金融数学、代数、几何、拓扑及其相关交叉研究领域等。满足要求的毕业生，将获香港中文大学硕士或博士学位。

The MPhil-PhD program in Mathematics aims to educate and cultivate research students with a broad foundation in mathematics and specialized knowledge in selected concentrations. They are expected to become leading academics and researchers in universities, research institutes, and industries, making an original and substantial contribution to selected fields. The research focuses on partial differential equations, computational mathematics, financial mathematics, algebra, geometry, topology, and related interdisciplinary fields. Student who satisfies the prescribed requirements will receive a degree from CUHK.

授课课程 Lecture Courses

<table>
<thead>
<tr>
<th>Measure Theory and Integration</th>
<th>Algebraic Geometry</th>
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<tr>
<td>Functional Analysis</td>
<td>Advanced Numerical Methods</td>
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<tr>
<td>Complex Function Theory</td>
<td>Advanced Probability Theory and Mathematical Statistics</td>
</tr>
<tr>
<td>Ordinary Differential Equations and Dynamical Systems</td>
<td>Advanced Financial Models</td>
</tr>
<tr>
<td>Advanced Abstract Algebra I</td>
<td>Topics in Analysis</td>
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<tr>
<td>Riemannian Geometry</td>
<td>Topics in Partial Differential Equations</td>
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<tr>
<td>Methods of Applied Mathematics</td>
<td>Topics in Algebra</td>
</tr>
<tr>
<td>Partial Differential Equations I</td>
<td>Topics in Representation Theory</td>
</tr>
<tr>
<td>Partial Differential Equations II</td>
<td>Topics in Differential Geometry and Topology</td>
</tr>
<tr>
<td>Lie Algebras and their Representations</td>
<td>Topics in Applied Mathematics</td>
</tr>
<tr>
<td>Lie groups and Lie Algebra</td>
<td>Topics in Scientific Computing</td>
</tr>
<tr>
<td>Lie Groups and their Representations</td>
<td>Topics in Financial Mathematics</td>
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<tr>
<td>Differential Topology</td>
<td>Financial Data Analysis</td>
</tr>
<tr>
<td>Algebraic Topology</td>
<td>Computational Methods in Financial Engineering</td>
</tr>
</tbody>
</table>
物理学硕士-博士专业

MPhil-PhD Program in Physics

物理学硕士-博士专业面向希望在物理领域进行深造的学生，所涵盖的研究领域包括量子物理、凝聚态物理、半导体物理、材料物理、表面与界面物理、自旋电子学、光电子学、拓扑物理和高能核物理等，使学生具备扎实的专业知识基础及高水平科研能力。申请人应具理工科教育背景。满足要求的毕业生，将获授香港中文大学硕士或博士学位。

The MPhil-PhD program in Physics is designed for students who wish to pursue a higher degree in the broad area of Physics, with a research focus on quantum physics, condensed matter physics, semiconductor physics, material physics, surface and interface physics, spintronics, optoelectronics, topological physics, and high-energy nuclear physics. The program aims to educate and cultivate research-oriented graduate students with a solid foundation in physics and high-level scientific research capability. Applicant should have an undergraduate education background in science and engineering. Student who satisfies the prescribed requirements will receive a degree from CUHK.

### 授课课程 A 组 Lecture Courses Group A
- 经典力学和狭义相对论 Classical Mechanics and Special Relativity
- 高等量子力学 Advanced Quantum Mechanics
- 统计力学 Advanced Statistical Mechanics
- 电动力学 Classical Electrodynamics

### 授课课程 B 组 Lecture Courses Group B
- 光子器件物理 Physics of Photonic Devices
- 材料科学与工程专题 Selected Topics in MSE
- 材料微观结构的演变 Microstructural Evolution in Materials
- 纳米材料 Nanomaterials
- 环境材料 Environmental Materials
- 流体力学 Fluid Mechanics
- 固体物理 Advanced Solid State Physics
- 量子多体物理 Quantum Many Body Physics
- 前沿物理实验 Advanced Physics Laboratory
- 拓扑物质相简介 Introduction to Topological Phases of Matter
- 磁学和自旋电子学 Magnetism and Spintronic
- 计算材料 Computational Materials
- 材料的电学、光学及磁学性质 Electronic, Optical, and Magnetic Properties of Materials
- 能源材料 Energy Materials
- 高分子材料 Advanced Polymer Materials
- 数学建模 Mathematical Modeling
- 统计场论 Statistical Field Theory
- 量子场论 Quantum Field Theory
- 电动力学 II Electrodynamics II
化学硕士-博士专业
MPhil-PhD Program in Chemistry

The program is designed for students who wish to pursue a higher degree in the broad area of Chemistry, with a research focus in synthetic chemistry, organometallic chemistry, catalytic chemistry, medicinal chemistry, chemical biology, advanced functional materials, environmental materials, nanomaterials, polymer chemistry, surface chemistry, energy materials, solar energy, fuel cells, Li-ion batteries. Applicant should have an education background in science and engineering. Student who satisfies the prescribed requirements will receive a degree from CUHK.

<table>
<thead>
<tr>
<th>授课课程 Lecture Courses</th>
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<tbody>
<tr>
<td>高等无机化学实验 Advanced Inorganic Chemistry Experiment</td>
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<tr>
<td>高等生物无机化学 Advanced Bioinorganic Chemistry</td>
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<tr>
<td>高等仪器分析实验 Advanced Instrumental Analytical Laboratory</td>
</tr>
<tr>
<td>高等物理化学 Advanced Physical Chemistry</td>
</tr>
<tr>
<td>高等化学生物学 Advanced Chemical Biology</td>
</tr>
<tr>
<td>高等金属有机与配位化学 Advanced Organometallic and Coordination Chemistry</td>
</tr>
<tr>
<td>高等有机合成实验 Advanced Organic Synthesis Laboratory</td>
</tr>
<tr>
<td>超分子化学 Supramolecular Chemistry</td>
</tr>
<tr>
<td>先进功能材料 Advanced Functional Molecular Materials</td>
</tr>
<tr>
<td>热力学与动力学 Thermodynamics and Kinetics</td>
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<tr>
<td>多相催化 Heterogeneous Catalysis</td>
</tr>
<tr>
<td>高等无机化学 Advanced Inorganic Chemistry</td>
</tr>
<tr>
<td>高等分析化学 Advanced Analytical Chemistry</td>
</tr>
<tr>
<td>高等有机化学 Advanced Organic Chemistry</td>
</tr>
<tr>
<td>高等化学计算 Advanced Computational Chemistry</td>
</tr>
<tr>
<td>高等物理有机化学 Advanced Physical Organic Chemistry</td>
</tr>
<tr>
<td>高等过渡金属化学与催化 Advanced Transition Metal Chemistry and Catalysis</td>
</tr>
<tr>
<td>现代有机合成方法学 Modern Organic Synthesis Methodology</td>
</tr>
<tr>
<td>高等高分子化学 Advanced Polymer Chemistry</td>
</tr>
<tr>
<td>能源材料 Energy Materials</td>
</tr>
<tr>
<td>分子量子力学 Molecular Quantum Mechanics</td>
</tr>
<tr>
<td>电化学系统 Electrochemical Systems</td>
</tr>
</tbody>
</table>
The MPhil-PhD program in Materials Science and Engineering has been designed for students who wish to pursue a higher degree in the broad area of Materials Science and Engineering, with a research focus on advanced structure materials, functional materials, smart materials, polymer materials, magnetic materials, optical and optoelectronic materials and devices, many body quantum-mechanic problem, non-equilibrium thermodynamics, biomaterials, nanomaterials, composites, surface chemistry and interfacial engineering, materials modeling and simulation, materials production and processing, energy materials, materials for environmental purification, aerosol and nanoparticle engineering, green chemistry and materials life cycle. Applicants should have an education background in science and engineering. Students who satisfy the prescribed requirements will receive a degree from CUHK.

必修课程 Required Courses

- 高级材料科学与工程 Advanced Materials Science and Engineering
- 工程经济与管理 Engineering Economics and Management

选修课程 Elective Courses

- 材料科学与工程专题 Selected Topics in MSE
- 普通实验 Laboratory-General
- 材料专业实验 Lab Special in Materials
- 计算材料 Computational Materials
- 材料微观结构的演变 Microstructural Evolution in Materials
- 材料的电学、光学及磁学性质 Electronic, Optical, and Magnetic Properties of Materials
- 高性能陶瓷 Advanced Ceramic Materials
- 纳米材料 Nanomaterials
- 能源材料 Energy Materials
- 环境材料 Environmental Materials
- 材料加工 Materials Processing
- 高分子物理 Polymer Physics
- 高等无机化学 Advanced Inorganic Chemistry
- 高等有机化学 Advanced Organic Chemistry
- 高等物理化学 Advanced Physical Chemistry
- 高等分析化学 Advanced Analytical Chemistry
- 高等高分子材料 Advanced Polymer Materials
- 高等生物化学 Advanced Biochemistry
- 高等计算化学 Advanced Computational Chemistry
- 化学原理 Principles of Chemical Engineering
- 化学反应工程 Chemical Reaction Engineering
- 传递现象 Transport Phenomena
- 热力学与动力学 Thermodynamics and Kinetics
- 量子力学 Quantum Mechanics
- 理论力学 Theoretical Mechanics
- 固体物理 Solid-State Physics
- 统计物理 Statistical Physics
- 电动力学 Electrodynamics
- 半导体器件物理 Physics of Semiconductors Devices
- 磁学与自旋电子学 Magnetism and Spintronics
- 光子器件物理 Physics of Photonic Devices
- 流体力学 Fluid Mechanics
- 数学建模 Mathematical Modeling
- 组织工程 Tissue Engineering
- 研究设计与文献学习 Research Inquiry and Literature Study
- 生物产品工程与生物炼制 Bioproduct Engineering and Biorefineries
能源科学与工程硕士-博士项目
MPhil-PhD Program in Energy Science and Engineering

能源科学与工程硕士-博士专业旨在培养希望在能源领域获得更高学位的学生，研究重点是多维能源理论、清洁和可持续能源、储能材料等。该专业目标是有针对性地培养学生在能源科学与工程相关领域的广度和深度知识，使学生在某一特定领域具扎实的基础知识和卓越的研究成果，成为高等教育、研究机构及工业界的高级研究人员。申请人应具有理工科教育背景。满足要求的毕业生，将获授香港中文大学硕士或博士学位。

The MPhil-PhD program in Energy Science and Engineering aims to educate and cultivate research students with a broad foundation in Energy Science and Engineering and specialized knowledge in selected concentrations, to perform cutting-edge research and provide professional education on globally hot issues related to energy. The students are expected to become leading academics and researchers in universities, research institutes, and industries. Applicant should have an education background in science and engineering. Student who satisfies the prescribed requirements will receive a degree from CUHK.

### 授课课程 A 组 Lecture Courses Group A

- 电力系统 Electrical Power Systems
- 能源与环境材料 Energy and Environmental Materials
- 智能电网 Smart Grid
- 储能材料 Materials in Energy Storage

### 授课课程 B 组 Lecture Courses Group B

- 能源电化学原理与技术 Energy-related Electrochemical Principle and Technology
- 机器学习 Machine Learning
- 电力电子 Power Electronics
- 电磁学 Electrical Machines
- 人工智能在能源系统中的应用 Applications of Artificial Intelligence in Energy Systems
- 太阳能工程 Solar Energy Engineering
- 地热科学与工程 Geothermal Science and Technology
- 地球物理电磁理论与方法 Electromagnetic Theory and Method for Earth Physics
- 固态物理学 Solid-State Physics
- 热力学与动力学 Thermodynamics and Kinetics
- 高等量子力学 Advanced Quantum Mechanics
- 流体力学 Fluid Mechanics
- 金属离子电池的组装、测试与分析 Assembly, Test and Analysis of Metal Ion Batteries
- 能源存储与转化中的计算化学 Computational Chemistry in Energy Storage and Conversion
- 优化理论与算法 Optimization Theory and Algorithms
- 能源经济学 Energy Economics
- 智能电网大数据 Big Data in Smart Grid
- 功率半导体器件基础 Fundamentals of Power Semiconductor Devices
- 风能与水能之转换 Wind and Hydroenergy Conversion
- 核能与风险评估 Nuclear Energy and Risk Assessment
- 智能化探测仪器原理与应用 Principle and Application of Intelligent Detection Instrument
- 高等物理化学 Advanced Physical Chemistry
- 材料表征方法学 Techniques for Materials Characterization
- 半导体物理学 Semiconductor Physics
- 电动力学 II Electrodynamics II
- 金属离子电池和材料 Rechargeable Metal Ion Batteries and Materials
计算机与信息工程硕士-博士项目
MPhil-PhD Program in Computer and Information Engineering

计算机与信息工程硕士-博士专业旨在培养计算机与信息工程相关领域高级研究型人才，所涵盖的研究领域包括人工智能、通信与网络、计算机视觉、控制、数据科学，数字信号处理、智能系统和机器人技术、运筹学、优化、光电领域等。申请人应具有理工科教育背景。满足要求的毕业生，将获授香港中文大学硕士或博士学位。

The MPhil-PhD program in Computer and Information Engineering is designed for students who wish to pursue a higher degree in the broad area of Computer and Information Engineering, with research focus on artificial intelligence, communications and networking, computer vision, control, data science, digital signal processing, intelligent systems and robotics, operations research, optimization, optoelectronics, photonics, physics on optics and related areas. Applicant should have an education background in science and engineering. Student who satisfies the prescribed requirements will receive a degree from CUHK.

授课课程 A 组 Lecture Courses Group A

- 社会计算 Social Computing
- 矩阵分析 Matrix Analysis
- 高级计算机体系结构 Advanced Computer Architecture
- 图像处理与计算机视觉 Image Processing and Computer Vision
- 随机过程 Stochastic Process
- 数据分析 Data Analytics
- 机器学习 Machine Learning
- 优化理论与算法 Optimization Theory and Algorithms
- 光通讯与互联 Optical Communication and Interconnects
- 计算机与网络安全 Computer and Network Security
- 移动网络 Mobile Networking
- 高级无线通信 Advanced Wireless Communications
- 信号处理高级专题 Advanced Topics in Signal Processing
- 高级计算机网络 Advanced Computer Networks
- 信息论 Information Theory
- 人工智能专题 Selected Topics in Artificial Intelligence
- 动态规划 Dynamic Programming
- 增强学习 Introduction of Reinforcement Learning
- 深度学习及应用 Deep Learning and Their Applications
- CIE专题 Selected Topics in CIE
- 随机控制专题 Selected Topics in Stochastic Control
- 深度学习基础及其应用 Deep Learning Foundations and Their Applications
- 规整化方法与核方法: 使用者理论 Regularization/Kernel Methods: Theory for the Users
- 网络经济学 Network Economics
- 自动控制理论与线性控制 Automatic Control Theory and Linear Control Systems
- CMOS 数字集成电路设计 CMOS Digital Integrated Circuits Design
- 纳米技术与微纳系统 Nanotechnology and Nano-Nanorobots
- 机器智能及应用 Machine Intelligence and Applications
- 智能材料与结构 Smart Material and Structures
- 机器人操作系统与编程 Programming for Robotics
- 统计信号处理 Fundamentals of Statistical Signal Processing
- CMOS集成电路设计 CMOS Analog IC Design
- 射频电路与系统 RF Circuits and Systems

授课课程 B 组 Lecture Courses Group B

- 计算机辅助几何设计 Topics in Computer-Aided Geometric Design
- 控制系统 Control Systems
- 智能系统 Robotics and Intelligent Systems
- 先进纳米技术与纳米机器人 Advanced Nanotechnology and Nanorobots
- 通信集成电路设计与测试实验 Communication Integrated Circuits Design and Measurement Laboratory
- 网络优化 Advanced Convex Optimization
- 非线性控制系统 Advanced Topics in Energy Systems
- 检测与估计理论及应用 Introduction to Detection & Estimation Theory & Application
- 纳米科技 Selected Topic in CIE II – Nanoscience
- CIE专题 Selected Topics in CIE II
- 基于电子学的信息存储与处理 Selected Topics in Spintronics for Information Storage and Processing
- 区块链系统 Selected topics in blockchain systems
- 计算机与通信系统性能分析 Performance Analysis of Computer and Communication Systems
- 电信交换与网络系统 Telecommunication Switching and Network Systems
- 从理论角度理解深度学习 Understanding Deep Learning from a Theoretical Perspective
- 云计算 Cloud Computing
- 物联网移动计算 Mobile Computing with Internet of Things
- 本体论学习 Selected Topics in Text Representation Learning
- 高斯过程在机器学习和信号处理中的应用 Gaussian Process for Machine Learning and Signal Processing
- 多天线无线通信 Multi-Antenna Wireless Communications
- 自由边界法及其在信号处理中的应用 The Bootstrap and its Applications in Signal Processing
- 工程量子力学 Quantum Mechanics for Engineering Application
- 超大规模集成电路设计 Very Large Scale Integrated Circuit Computer-Aided Design
- 编码理论与应用 Coding Theory and Applications
MPhil-PhD Program in Biomedical Engineering
(offered jointly with MED)

The Biomedical Engineering (BME) is an interdisciplinary program involving the application of Engineering principles and design concepts on Biology and Medicine for healthcare purposes, such as diagnosis, monitoring, and therapy of diseases. The primary mission of our BME program is to cultivate students with the cross-disciplinary expertise in biology, medicine, and engineering fields. The discipline of biomedical engineering aims to cultivate talented researchers with 1) a positive spirit and a responsible quality of good professional ethics; 2) basic knowledge and basic skills in medical electronics, medical materials, medical devices and medical big data processing, and be able to engage in biomedical engineering, Engineering and technical talents and leaders in the design, manufacture and application of biomaterials and medical devices; 3) Good at understanding and grasping the frontier development of biomedical engineering disciplines, with the ability to innovate in technology, apply biomedical engineering and solve practical problems; 4) Have Strong ability to acquire and apply new knowledge, academic communication ability, ability to cooperate with others and adapt to environmental changes.

专业必修课程 Lecture Courses Group A

- 论文研究 Thesis Research
- 研究专题报告与研讨会 (一) Research Seminars I
- 生物科学研究生课程 Responsible Conduct of Biological Science Research
- 国情教育课程 Civic Education courses
- 论文研究 (二) Thesis Research II
- 研究专题报告与研讨会 (二) Research Seminars II
- 论文撰写与报告 Thesis Writing and Presentation

授课课程 A 组 Lecture Courses Group A

- 高等生物医学工程 Advanced Biomedical Engineering
- 高等生物医学影像 Advanced Biomedical Imaging
- 合成生物学 Synthetic Biology
- 医学应用人工智能 Applied Artificial Intelligence in Healthcare
- 骨科与应用医学 Introduction to Hipkies and its Applications
- 先进生物传感技术 Advanced Biosensing Technologies
- 再生医学细胞及亚细胞 Cell Acellular Therapy in Regenerative Medicine
- 高等纳米技术和纳米机器人 Advanced Nanotechnology and Nanorobots
- 高等生物材料 Advanced Biomaterials
- 医学机器人导论 Introduction to Medical Robotics
- 疾病的生物和分子基础 Biochemical and Molecular Basis of Diseases
- 临床生物标志物开发 Biomarker Development for Clinical Practice

授课课程 B 组 Lecture Courses Group B

- 创业原则 Principles of Entrepreneurship
- 生物医学工程伦理、安全和实践 Biomedical Engineering Ethics, Safety and Practice
- 生物医学工程研究方法一 Methods in Biomedical Engineering Research I
- 生物医学工程研究方法二 Methods in Biomedical Engineering Research II
- 免疫学 Immunology
- 生物医学科学中的统计方法 Statistical Methods for Biomedical Sciences
- 心脏组织工程 Cardiovascular Tissue Engineering
- 生物医学工程研究方法 (一) Methods in Biomedical Engineering Research I
- 生物医学工程研究方法 (二) Methods in Biomedical Engineering Research II
- 高等生物化 Advanced Biochemistry
- 生物信息学特论 Selected Topics in Bioinformatics Algorithms
- 传染病感染及其治疗的生理性 The Biochemical Principles of Infectious
  Diseases and Their Treatments
Integrated Training

SSE has implemented a comprehensive education mode from bachelor, master to doctoral degrees and set up Bachelor-Ph.D. Class, Bachelor-Master Class and Elite Class. It aims to cultivate top-notch innovative international talents in the fields of Mathematics and Applied Mathematics, Physics, Chemistry, Electrical and Computer Engineering, Materials Science and Engineering, New Energy Science and Engineering, and explore the talent training mode for strategic scientists that China needs.

Features

- 多样化专业发展平台: Diversified developing platforms for various majors
- 交叉性的国际课程设置: Integrated and international courses setting
- 一对一导师指导方式: One-on-one academic advising
- 人性化的准入退出机制: Humanized access and exit mechanism
- 无限制的国际交流机会: Unrestricted international exchange opportunities

Bachelor-Ph.D. Class

- 申请时间: Application Time
  - 高考填报志愿前: Before filling university preferences after Gaokao
  - 被录取后大一开学期间: During the start of freshman year
  - 大二或大三学年中: During sophomore or junior year

满足以下条件中的任何一个，即可提出申请:

- 获得全国中学生奥林匹克（数学、物理、化学、生物、信息学）竞赛全国金 / 银 / 铜牌，并经全国青少年竞赛获奖名单公示的学生
- 获得大学颁发的半免学费奖学金、全免学费奖学金、全额奖学金、诺贝尔班奖学金等四类新生入学奖学金的学生
- 理工学院院长嘉许名单（Dean's List）入选者
- 诚实守信，学风端正，品行优良，无违反法律法规和校规校纪记录
- 大二或大三平均绩点（CGPA）达到 3.70 及以上的理工学院学生

Applicants should fulfill one of the requirements prescribed below:

- Students who have won national gold/silver/bronze medals in the National Middle School Students' Olympiad (Mathematics, Physics, Chemistry, Biology, Informatics) and have been announced by the National Youth Science and Technology Competition; or
- Students who have received four types of Entry Scholarships, namely Half Tuition Scholarship, Full Tuition Scholarship, Honor Scholarship, and Nobel Class Scholarship issued by the University; or
- Qualified candidates of Dean's List of SSE; or
- Demonstrate honesty and integrity, maintain good academic and ethical conduct, and have no record of violating laws, regulations, or university rules and disciplines
- Students in SSE with a CGPA of 3.70 or above in their sophomore or junior year
直硕班 Bachelor-Master Class

申请条件
- 计划在次年夏季毕业的理工学院在读本科生
- 诚实守信，学风端正，品行优良，无违反法律法规和校规校纪记录
- 大三结束时平均绩点（CGPA）在本专业排名前 50%，或不低于 3.0

Application requirements
- SSE undergraduates planning to graduate in the summer of the following year
- Demonstrate honesty and integrity, maintain good academic and ethical conduct, and have no record of violating laws, regulations, or university rules and disciplines
- Rank in the top 50% of their major with a CGPA by the end of junior year, or maintain a CGPA of 3.0 or higher

本硕连读精英班 ( 翔龙鸣凤班 ) Elite Class

申请条件
- 诚实守信，学风端正，品行优良，无违反法律法规和校规校纪记录
- 大一入学时曾获省级比赛一等奖；或已获得直硕班资格
- 大一结束时已修读 39 个或以上学分，及 CGPA 在 3.3 或以上

Application requirements
- Demonstrate honesty and integrity, maintain good academic and ethical conduct, and have no record of violating laws, regulations, or university rules and disciplines
- Students who have won the first prize in a provincial competition; or qualified the Bachelor-Ph.D. Class
- Students in SSE with a CGPA of 3.3 or above and obtained 39 or more credits by the end of the first year
The Chinese University of Hong Kong (CUHK) and The Chinese University of Hong Kong, Shenzhen (CUHK(SZ)) are launching comprehensive Collaborative Double Major Programs. Students will pursue two majors including one major offered by CUHK(SZ) and Interdisciplinary Data Analytics/Aerospace Science and Earth Informatics offered by CUHK. Within the four years of studies, they will attend classes and participate in learning and research activities at both the Shenzhen campus CUHK and the Shatin campus CUHK and the Shatin campus.

**Curriculum Structure**

### First Major at CUHK(SZ)
- Mathematics and Applied Mathematics
- Electrical and Computer Engineering
- Computer Science and Engineering
- Statistics
- Financial Engineering
- Marketing and Communication

### Second Major at CUHK
- Interdisciplinary Data Analytics

### First Major at CUHK
- Electrical and Computer Engineering
- Physics
- New Energy Science and Engineering
  - Data Science and Big Data Technology
  - Urban Management (approval pending)

### Second Major at CUHK
- Aerospace Science and Earth Informatics
科研力量
Scientific Strengths

理工学院以高标准、严要求，从全球招聘选拔顶尖教授团队，他们在各自的研究领域具有深厚的学术背景及丰富的教学和研究经验。自建院以来，学院共获批成立多个研究院、省市级创新创业团队、重点实验室和校企联合实验室，致力于开展前沿研究和创新项目。为促进学术交流，理工学院定期举办论坛、研讨会、讲座等各类学术活动，为全校师生提供交流分享的平台，邀请国内外知名学者和行业专家分享成果，拓展视野、激发创新思维、推动学术进步。

Aiming at high standards, SSE is building up a team of top scholars from worldwide. Faculty team actively contributes to international academic research and leads ahead in many professional disciplines. Since its establishment, SSE has been approved to establish several research institutes, provincial and municipal innovation teams, key laboratories and industrial joint laboratories, dedicated to conducting cutting-edge research and innovative projects. In order to promote academic exchange, SSE regularly hosts academic forums, seminars and talks in various research fields, providing a platform for faculty and students to exchange ideas, stimulate innovative thinking, and drive the advancement of academic research.
师资力量
Our Faculty

唐本忠 TANG, Ben Zhong
院长、校长讲座讲席教授
Dean, X.Q. Deng Presidential Chair Professor
中国科学院院士，亚太材料科学院院士，发展中国家科学院院士
京都大学博士
研究领域：材料科学、高分子化学、生物医学诊疗等
唐教授是聚合物激光器技术的开创者和该领域研究的领导者。

Member of the Chinese Academy of Sciences, Academician of the Asia Pacific Academy of Materials, Fellow of the World Academy of Sciences for the Advancement of Science in Developing Countries.
Ph.D. (Kyoto University)
Research field: Materials science, macromolecular chemistry, and biomedical therapeutics. His lab is spearheading the scientific research on aggregation-induced emission.

罗智泉 LUO, Zhiquan Tom
副校长（学术和科研），校长讲座讲席教授
Vice President (Academic), X.Q. Deng Presidential Chair Professor
加拿大皇家科学院院士，中国工程院外籍院士，国际电气及电子工程学会会士，美国电气与应用数学学会会士
麻省理工学院博士
研究领域：大数据分析的最优化方法；信号处理中的算法设计与复杂性分析；数据分析
Fellow of the Royal Society of Canada, Foreign Member of the Chinese Academy of Engineering, IEEE Fellow, Fellow of the Society for Industrial and Applied Mathematics.
Ph.D. (Massachusetts Institute of Technology)
Research field: Optimization methods for big data analytics, complexity and computational issues arising from signal processing, digital communication.

常瑞华 Connie Chang-Hasnain
校长讲座讲席教授
X.Q. Deng Presidential Chair Professor
中国工程院外籍院士，美国国家工程院外籍院士，国际电气及电子工程师学会会士
加州大学伯克利分校博士
研究领域：纳米材料的合成、性质和器件；宽带光通信；VCSEL；光电器件结构
Foreign member of the Chinese Academy of Engineering, Member of the US National Academy of Engineering, IEEE Fellow, Member of Optical Society of America
Ph.D. (University of California, Berkeley)
Research field: Micro/Nano electro mechanical systems (MEMS), physical electronics (PHY), Nano-optoelectronic devices, microsystems and materials.

徐扬生 XU, Yangsheng
校长、校长讲座讲席教授
President, X.Q. Deng Presidential Chair Professor
中国工程院院士，美国国家工程院外籍院士，欧洲科学院院士，国际欧亚科学院院士，香港工程科学院院士，国际电气及电子工程师学会会士
宾夕法尼亚大学博士
研究领域：机器人；智能系统与控制；设计与制造；空间机器人；服务机器人；穿戴式人机界面；智能混合动力汽车等
Member of the Chinese Academy of Engineering, International Member of the US National Academy of Engineering, Fellow of the Royal Academy of Sciences, Fellow of the International Academy of Aeronautics and Astronautics, Academician of International Eurasian Academy of Sciences, Fellow of Hong Kong Academy of Engineering Sciences.
Ph.D. (University of Pennsylvania)
Research field: Robotics, intelligent systems and control, design and manufacturing, service and space robotics, wearable interface, intelligent electric vehicles.

朱世平 ZHU, Sheping
副校长（外事及学生事务），校长讲座讲席教授
Vice President (External and Student Affairs), X.Q. Deng Presidential Chair Professor
加拿大皇家科学院院士，中国工程院院士，中国化学会会士
英国巴斯大学博士
研究领域：高分子化学；聚合反应工程；溶液法合成纤维素聚合；聚酯聚合物产品开发；可控自由基聚合；聚合过程模拟及工业过程数字化；智能高分子材料；材料表面改性
Fellow of the Canadian Academy of Engineering, Fellow of the Royal Society of Canada, Fellow of the World Academy of Sciences for the Advancement of Science in Developing Countries, Fellow of Engineering Institute of Canada, Fellow of Chemical Institute of Canada.
Ph.D. (McMaster University)
Research field: Polymer chemical engineering, polymer reaction engineering, metallocene solution polymerization of olefins, high-end polymer product development, controlled radical polymerization, polymerization kinetic modeling and industrial process digitalization.

崔曙光 CUI, Shuguang
校长讲座讲席教授
X.Q. Deng Presidential Chair Professor
加拿大皇家科学院院士，加拿大工程院院士，国际电气及电子工程师学会会士
斯坦福大学博士
研究领域：数据分析和信息系统
Fellow of the Royal Society of Canada, Fellow of the Canadian Academy of Engineering, IEEE Fellow.
Ph.D. (Stanford University)
Research field: Data analytics and information systems.
**黄乃正 WONG, Nai Ching Henry**

**School Chair Professor**

X.Q. Deng Presidential Chair Professor

- Chinese Academy of Sciences, Fellow of the World Academy of Sciences for the Advancement of Science in Developing Countries, Member of The Hong Kong Academy of Sciences
- Ph.D. (University College London)

**Research field:** Syntheses of natural and non-natural molecules

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**裴有康 PUI, David You-Hong**

**School Chair Professor**

X.Q. Deng Presidential Chair Professor

- US Academy of Engineering, Distinguished McKnight University Professor
- Ph.D. (University of Minnesota)

**Research field:** Aerosol and nanoparticle science and engineering, especially particle instrumentation development and filtration solutions to air pollution control

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**帅志刚 SHUAI, Zhigang**

**Associate Dean (Research), School Chair Professor**

- Associate Professor of the Chinese Academy of Sciences, Fellow of the World Academy of Sciences for the Advancement of Science in Developing Countries, Member of the Academy of Sciences in China
- Ph.D. (Fudan University)

**Research field:** Theoretical and computational chemistry, theoretical condensed matter physics, computational materials science

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**张瑞 ZHANG, Rui**

**School Chair Professor**

- Fellow of the Academy of Engineering Singapore, IEEE Fellow, Web of Science Highly Cited Researcher

**Research field:** Wireless communications

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**唐叔贤 TONG, Shuk Yin David**

**School Chair Professor**

- Chinese Academy of Sciences, Fellow of the World Academy of Sciences for the Advancement of Science in Developing Countries
- Ph.D. (University of California, Irvine)

**Research field:** Surface science and technology

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**邹志刚 ZOU, Zhigang**

**School Chair Professor**

- Chinese Academy of Sciences, Fellow of the World Academy of Sciences for the Advancement of Science in Developing Countries
- Ph.D. (University of Tokyo)

**Research field:** Materials science

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**黄建伟 HUANG, Jianwei**

**Associate Vice President (Institutional Development), School Chair Professor**

- IEEE Fellow, Web of Science Highly Cited Researcher

**Research field:** Crowd intelligence, network optimization and economics

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**黄劲松 HUANG, Jingsong**

**School Chair Professor**

- Ph.D. (Massachusetts Institute of Technology)

**Research field:** Representation theory, Lie groups and harmonic analysis
倪维明 NI, Wei-Ming
校长讲座教授
Presidential Chair Professor

纽约大学博士
研究领域：偏微分方程；数学生物
Ph.D. (New York University)
Research field: Partial differential equations, mathematical biology

王学锋 WANG, Xuefeng
研究生院院长, 校长讲座教授
Dean of Graduate School, Presidential Chair Professor

明尼苏达大学博士
研究领域：偏微分方程及其应用
Ph.D. (University of Minnesota)
Research field: Partial differential equations and applications

甘培润 KAM, Pooi-Yuen
教授
Professor

国际电气及电子工程师学会会员、亚太人工智能学会会员，
新加坡工程院院士
麻省理工学院博士
研究领域：通信理论与系统；统计与应用数学
IEEE Fellow, AAA Fellow, IES Fellow
Ph.D. (Massachusetts Institute of Technology)
Research field: Communication theory and systems, statistics and applied mathematics

正向 K, Wing Por Kevin
教授
Professor

英国皇家化学学会会员
Fellow of the Royal Society of Chemistry
Ph.D. (The University of Western Australia)
Research field: Synthetic, structural and mechanistic studies of organometallic compounds, reactivity studies, catalytic studies

王筱平 WANG, Xiaoping
校长讲座教授
Presidential Chair Professor

纽约大学应用数学研究所博士
研究领域：界面问题和多相流的建模与模拟; 图像处理; 智能制造中的优化问题以微型计算的数值方法
Ph.D. (Courant Institute of Mathematical Sciences, NYU)
Research field: Modeling and simulation of interface problems and multiphase flow, image processing, topology optimization problem in intelligent manufacturing and numerical method of micro-magnetic calculation

毕文刚 BI, Wengang
教授
Professor

乌克兰国家工程院外籍院士，美国光学学会会员，国际光学工程学会会员
加利福尼亚大学圣地亚哥分校博士
研究领域：第三代半导体材料与器件；量子点纳米材料；MICRO-LED显示技术
Academician of the Ukrainian Academy of Engineering Sciences, Optical Fellow, SPIE Fellow
Ph.D. (University of California, San Diego)
Research field: The third-generation semiconductor materials and devices, quantum dots nano materials, Micro-LED displays

Ayman Kachmar
教授
Professor

巴黎第一大学博士
研究领域：数值分析、谱理论和偏微分方程，重点关注量子力学和凝聚态物理相关的问题
Ph.D. (University Paris XI)
Research field: Mathematical analysis, spectral theory, and partial differential equations, with a focus on questions related to quantum mechanics and phase transitions in condensed matter physics

梁潇龙 LEUNG, Clement
教授
Professor

英国计算机协会会员；皇家艺文剧院有限公司会员
伦敦大学学院博士
研究领域：运用深度知识的自然语言处理算法；强化学习
FBSC, FRSA
Ph.D. (University College London)
Research field: Self-learning media search engines, bandit problems in reinforcement learning, performance of multiple sequential classifiers

梁永波 LEUNG, Wing Por Kevin
教授
Professor

英国皇家化学学会会员
Ph.D. (The University of Western Australia)
Research field: Synthetic, structural and mechanistic studies of organometallic compounds, reactivity studies, catalytic studies
Daigo Miyajima
Professor

Presidental Fellow  
Ph.D. (The University of Tokyo)  
Research field: Materials science and supramolecular chemistry

Zhou ZHU, YAN
Professor

Presidental Fellow, Fellow of Institute of Physics  
Ph.D. (Royal Institute of Technology (KTH))  
Research field: Spintronics, condensed matter physics, magnetic materials and devices

He Dongdong
Associate Professor

Ph.D. (York University)  
Research field: Numerical methods for partial differential equations, mathematical modelling and scientific computing, fluid mechanics, computational fluid dynamics, applied asymptotic analysis

Huang Chuan
Associate Professor

Presidental Young Fellow  
Ph.D. (Texas A&M University)  
Research field: Wireless communications and signal processing, including data/Al driven wireless networks and spectrum sensing/management

Huang Rui
Associate Professor

Presidental Young Fellow  
Ph.D. (Rutgers University)  
Research field: Computer vision, image processing, pattern recognition, machine learning

Pang Xinbin
Professor

Ph.D. (Shandong University)  
Research field: Partial differential equations, calculus of variations, mathematical theory of superconductivity, liquid crystals and electromagnetism, nonlinear Maxwell equations and Maxwell-Stokes equations

Zhu Jun
Professor

Presidental Fellow  
Ph.D. (The Hong Kong University of Science and Technology)  
Research field: Physical organic chemistry, organometallic chemistry, aromaticity, dinitrogen activation

Hou Yong
Associate Professor

Ph.D. (University of Illinois at Chicago)  
Research field: Geometric topology & geometric theory
潘文安 PUN, Simon
Associate Professor
南加州大学博士
Research field: AI Internet of Things, machine learning, satellite remote sensing

彭小冰 PENG, Xiaoshui
Associate Professor
研究领域：具有重要生理活性的天然产物全合成研究；基于药物天然产物的药化联合研究；绿色合成方法学研究
天然产物导向的合成方法学研究
Presidential Young Fellow
Ph.D. (The Chinese University of Hong Kong)
Research field: Novel “bio-inspired” strategies and methodologies for the total synthesis of structurally complex and biologically significant natural products, natural product enabled discovery and application

钱辉环 QIAN, Huihuan Alex
Associate Professor
香港中文大学博士
研究领域：机器人；智能系统
Ph.D. (The Chinese University of Hong Kong)
Research field: Robotics, intelligent systems

沈颖祺 SHUM Wing Ki, Kenneth
Associate Professor
南加州大学博士
Research field: Information and coding theory

王明锋 WANG, Mingfeng
Associate Professor
校长大学者
多伦多大学博士
研究领域：高分子合成与功能材料；有机光电子学；纳米医学；生物工程
Presidential Fellow
Ph.D. (University of Toronto)
Research field: Polymer chemistry and materials, organic optoelectronics, nanomedicine, biomedical engineering

肖博文 XIAO, Bowen
执行副校长、副校长
Executive Associate Dean, Associate Professor
校长大学者
哥伦比亚大学博士
研究领域：理论物理；黑洞理论
Presidential Fellow
Ph.D. (Columbia University)
Research field: Theoretical physics, high Energy nuclear physics theory

许杰 XU, Jie
助理院长 (科研)、副教授
Assistant Dean (Research), Associate Professor
校长大学者
中国科学技术大学博士
研究领域：无线通信；无线能量传输；无人机通信；移动边缘计算和机器学习
Presidential Fellow
Ph.D. (University of Science and Technology of China)
Research field: Wireless communications, wireless power transfer, UAV communications, and mobile edge computing and machine learning

杨升浩 YANG, Shenghao
Associate Professor
校长大学者
香港中文大学博士
研究领域：信息安全，编码理论，网络编码，网络计算
Presidential Young Fellow
Ph.D. (The Chinese University of Hong Kong)
Research field: Information theory, coding theory, network coding, network computation
张建辉 ZHANG, Jianhui
Associate Professor
慕尼黑工业大学博士
研究领域：理论物理、高能物理
Ph.D. (Technical University of Munich, Germany)
Research field: Theoretical physics, high-energy physics

张昭宇 ZHANG, Zhaoyu
Associate Professor
加州理工学院博士
研究领域：半导体激光器、纳米光子学；有机发光器件；钙钛矿光电器件；薄膜太阳能电池
Ph.D. (California Institute of Technology)
Research field: Semiconductor lasers, nanophotonics, organic light emitting devices, perovskite optoelectronics, thin film solar cells

张纵辉 CHANG, Tsung-Hui
Assistant Dean (Education), Associate Professor
Assistant Dean (Education), Associate Professor
校董学者、国际电气及电子工程师学会会士
台湾清华大学博士
研究领域：无线通信与机器学习中的关键技术与优化方法
Presidential Fellow, IEEE Fellow
Ph.D. (National Tsing Hua University)
Research field: Signal processing and optimization methods for wireless communications and machine learning

赵俊华 ZHAO, Junhua
Associate Professor
校长青年学者
澳大利亚悉尼大学博士
研究领域：电力系统分析与计算；智能电网；能源经济；低碳转型；人工智能
Presidential Young Fellow
Ph.D. (The University of Queensland)
Research field: Power system analysis and computation, smart grid, data mining, artificial intelligence, electricity market

朱建 ZHU, Jian
Associate Professor
阿尔伯塔大学博士
研究领域：软体智能机器人；仿生机器人及智能材料和结构
Ph.D. (University of Alberta)
Research field: Intelligent soft robots, bioinspired robots, smart materials and structures

朱熹 ZHU, Xi
Associate Professor
校长青年学者
新加坡南洋理工大学博士
研究领域：人工智能与机器人技术等与智能技术相关的新型材料科学
包括医用小分子、电池材料和类脑计算光芯片
Presidential Young Fellow
Ph.D. (Nanyang Technological University)
Research field: The AI and robotics endorsed materials science research, including pharmacy, battery materials and optics chip

蔡玮 CAI, Wei
Assistant Professor
Assistant Professor
校长青年学者
加拿大不列颠哥伦比亚大学博士
研究领域：元宇宙；区块链；游戏；人机交互；云中心化金融/游戏金融；用户内容生成；计算艺术
Presidential Young Fellow
Ph.D. (The University of British Columbia)
Research field: Metaverse, blockchain, game, human-computer interaction, DeFi/GameFi, UGC/AIGC, computational art

陈俊挺 CHEN, Junting
Assistant Professor
校长青年学者
香港科技大学博士
研究领域：信号处理；优化理论；博弈论；通信理论；控制理论；机器学习及其在无线通信、定位、水下网络、数据驱动的通信中的应用
Presidential Young Fellow
Ph.D. (The Hong Kong University of Science and Technology)
Research field: Signal processing, optimization and game theory, communication theory, information theory, control, and machine learning
陈添锴 CHEN, Tiankai
Assistant Professor

校内年学学者
新加坡国立大学博士
研究领域：纳米化学，纳米材料，无机化学

Presidential Young Fellow
Ph.D. (National University of Singapore)
Research field: Nanochemistry, nanomaterials, inorganic chemistry

陈廷欢 CHEN, Tinghuan
Assistant Professor

香港中文大学博士
研究领域：超大规模集成电路设计和面向边缘端的深度学习加速器设计

Ph.D. (The Chinese University of Hong Kong)
Research field: VLSI CAD and deep learning accelerators for edge devices

陈元 CHEN, Yuan
Assistant Professor

香港中文大学博士
研究领域：偏微分方程及其应用

Ph.D. (The Chinese University of Hong Kong)
Research field: Partial differential equations and its applications

陈仲欣 CHEN, Zhongxin
Assistant Professor

校内年学学者
新加坡国立大学博士
研究领域：多相催化，纳米材料，能源转化

Presidential Young Fellow
Ph.D. (National University of Singapore)
Research field: Heterogeneous catalysis, nanomaterials, energy storage/conversion

陈梓垲 CHEN, Zitan
Assistant Professor

校内年学学者
马里兰大学帕克分校博士
研究领域：编程理论，信互论

Presidential Young Fellow
Ph.D. (University of Maryland, College Park)
Research field: Coding theory, information theory

崔冰宇 CUI, Bingyu
Assistant Professor

剑桥大学博士
研究领域：非晶材料，非平衡统计物理学，光与物质作用理论，量子测理论，波函数理论

Ph.D. (University of Cambridge)
Research field: Amorphous materials, nonequilibrium statistical mechanics, light-matter interaction theory, quantum measurement theory, Bohmian mechanics

龚世华 GONG, Shihua
Assistant Professor

北京大学博士
研究领域：科学计算与数值分析，有限元，区域分解法，预条件

Ph.D. (Peking University)
Research field: Scientific computing and numerical analysis, finite element, domain decomposition, and preconditioning techniques

管君 GUAN, Jun
Assistant Professor

校内年学学者
美国西北大学博士
研究领域：纳米光学，光与物质相互作用，等离子光学

Presidential Young Fellow
Ph.D. (Northwestern University)
Research field: Nanophotonics, light-matter interactions, plasmonic lasers

Our Faculty 53
韩晓光 HAN, Xiaoguang  
Assistant Professor

研究领域：计算视觉；计算机图形学；人机交互；医学图像处理；机器学习

Presidential Young Fellow  
Ph.D. (The University of Hong Kong)  
Research field: Computer vision, computer graphics, human-computer interaction, medical image analysis, machine learning

黄家裕 WONG, Kayue Daniel  
Assistant Professor

研究领域：复杂及代数的表示论

Ph.D. (Cornell University)  
Research field: Representation theory of lie groups

纪冬旭 JI, Dongxu  
Assistant Professor

研究领域：低品位热能利用；地热能；温室发电；人工智能在能源中的应用

Presidential Young Fellow  
Ph.D. (Nanyang Technological University)  
Research field: Low grade thermal energy utilization, geothermal energy, AI and thermal energy, etc.

靳羽华 JIN, Yuhua  
Assistant Professor

研究领域：人机交互；光学工程；个性化制造；先进视觉技术；艺术与设计

Ph.D. (Beijing University of Technology)  
Research field: Human-computer interaction, optical engineering, personal fabrication, visualization technologies, art and design

柯志海 KE, Zhihai  
Assistant Professor

研究领域：合成化学；有机催化；点击化学；有机框架催化

Presidential Young Fellow  
Ph.D. (The Chinese University of Hong Kong)  
Research field: Synthetic organic chemistry, organocatalysis, click chemistry, organic frameworks catalysis

雷顺波 LEI, Shunbo  
Assistant Professor

研究领域：电力与能源系统；灵活智慧高效建筑；基础设施弹性；优化；机器/强化学习

Ph.D. (The University of Hong Kong)  
Research field: Power & energy systems, grid-interactive efficient buildings, infrastructure resilience, optimization, machine/reinforcement learning

李怀光 LI, Huai guang  
Assistant Professor

研究领域：生物催化；燃料电池；二氧化碳吸附

Presidential Young Fellow  
Ph.D. (Ruhr-Universitat Bochum)  
Research field: Biocatalyst, fuel cells, CO2 adsorption

李健斌 LI, Jianbin  
Assistant Professor

研究领域：有机化学；光催化；生物催化

Ph.D. (McGill University)  
Research field: Organic chemistry, photocatalysis and biocatalysis
李玉田 LI, Yutian
Assistant Professor

Ph.D. (City University of Hong Kong)
Research field: Analysis and application, partial differential equations, scientific calculations and numerical analysis, mathematical finance

李镇 LI, Zhen
Assistant Professor

Presidental Young Fellow
Ph.D. (The University of Hong Kong)
Research field: Deep learning, computational biological and computer vision

李卓彦 LEE, Cheuk Yin
Assistant Professor

Ph.D. (Michigan State University)
Research field: Probability theory, stochastic analysis, stochastic partial differential equations

林天麟 LAM, Tin Lun
Assistant Professor

Presidental Young Fellow, IEEE Senior Member
Ph.D. (The Chinese University of Hong Kong)
Research field: Multi-robot systems, field robotics, collaborative robotics

刘杨 LIU, Yang
Assistant Professor

Ph.D. (National University of Singapore)
Research field: Automorphic forms and representation theory

刘寻 LIU, Xun
Assistant Professor

Presidental Young Fellow
Ph.D. (The Hong Kong University of Science and Technology)
Research field: Power management integrated circuits design

罗才华 LUC, Caihua
Assistant Professor

Ph.D. (National University of Singapore)
Research field: Automorphic forms and representation theory

罗元 LUO, Yuan
Assistant Professor

Ph.D. (The Chinese University of Hong Kong)
Research field: Artificial intelligence, computational game theory, mechanism design, machine learning, multi-agent reinforcement learning

Our Faculty 55
钱琦 QIAN, Qi
助理教授
Assistant Professor

普渡大学博士
研究领域：量子传输；量子材料与器件

Ph.D. (Purdue University)
Research field: Quantum transport, quantum materials and devices

丘子杰 QIU, Zijie
助理教授
Assistant Professor

校长青年学者
香港科技大学博士
研究领域：有机功能材料；高分子化学；有机化学

Presidential Young Fellow
Ph.D. (The Hong Kong University of Science and Technology)
Research field: Organic functional materials, polymer synthesis, organic chemistry

权超禹 QUAN, Chaoyu
助理教授
Assistant Professor

巴黎第六大学博士
研究领域：主要从事离散优化模型数值解；验证方程薛定谔方程精度

Ph.D. (Université Pierre et Marie Curie, France)
Research field: High accurate methods for phase-field equations, numerical methods for time-fractional problems, mathematical methods in quantum chemistry

沈閻明 SHEN, Kaiming
助理教授
Assistant Professor

校长青年学者
多伦多大学博士
研究领域：优化；多用户信息论；无线通信；数据科学；机器学习

Presidential Young Fellow
Ph.D. (University of Toronto)
Research field: Optimization, multi-user information theory, wireless communications, data science, machine learning

孙正隆 SUN, Zhenglong
助理教授
Assistant Professor

校长青年学者
新加坡南洋理工大学博士
研究领域：医疗设备研发；系统建模；力传递与控制；人机交互

Presidential Young Fellow
Ph.D. (Nanyang Technological University)
Research field: Online scheduling and distributed algorithm design and optimizations for smart grid, edge computing and other cyber-physical systems, fundamental research in machine learning, algorithm and artificial intelligence

唐晓莹 TANG, Xiaoying
助理教授
Assistant Professor

香港中文大学博士
研究领域：算法设计；智能网络；人工智能；机器学习

Ph.D. (The Chinese University of Hong Kong)
Research field: Online scheduling and distributed algorithm design and optimizations for smart grid, edge computing and other cyber-physical systems, fundamental research in machine learning, algorithm and artificial intelligence

王东 WANG, Dong
助理教授
Assistant Professor

校长青年学者
香港科技大学博士
研究领域：计算流体力学；计算材料科学；图像处理；优化；机器学习

Presidential Young Fellow
Ph.D. (The Hong Kong University of Science and Technology)
Research field: Computational fluid dynamics, computational material science, image processing, optimization, machine learning

王方鑫 WANG, Fangxin
助理教授
Assistant Professor

校长青年学者
西蒙菲莎大学博士
研究领域：计算机网络；多媒体系统及应用；云计算与边缘计算；机器学习；物联网

Presidential Young Fellow
Ph.D. (Simon Fraser University)
Research field: Computer networking, multimedia systems and applications, cloud and edge computing, machine learning, and Internet-of-Things
王璐 WANG, Lu
助理教授
Assistant Professor

院长青年学者
新加坡南洋理工大学博士
研究领域：光热催化与电催化

Presidential Young Fellow
Ph.D. (Nanyang Technological University)
Research field: Photothermal catalysis and electrocatalysis

吴晨晔 WU, Chenye
助理教授
Assistant Professor

院长青年学者
港交所交叉信息研究院博士
研究领域：智能能源系统

Presidential Young Fellow
Ph.D. (Institute for Interdisciplinary Information Sciences, Tsinghua University)
Research field: Smart energy systems

吴亮 WU, Liang
助理教授
Assistant Professor

院长青年学者
香港科技大学博士
研究领域：射频 / 毫米波 / 太赫兹集成电路与系统

Presidential Young Fellow
Ph.D. (The Hong Kong University of Science and Technology)
Research field: Radio-frequency, millimeter-wave and terahertz integrated circuits and systems

解碧木 XIE, Biye
助理教授
Assistant Professor

院长青年学者
香港大学博士
研究领域：凝聚态拓扑理论；人工智能及系统；光、声、拓扑材料

Presidential Young Fellow
Ph.D. (The University of Hong Kong)
Research field: Topological physics, artificial condensed phase materials, photonic and acoustic functional devices

颜骏 YAN, Jun
助理教授
Assistant Professor

院长青年学者
华南理工大学博士
研究领域：有机电子学；物理建模；器件物理；光伏；可再生能源

Presidential Young Fellow
Ph.D. (South China University of Technology)
Research field: Organic electronics, modelling, device physics, photovoltaics, renewable energy

叶靖强 YE, Jingqiang
助理教授
Assistant Professor

加州大学圣地亚哥分校博士
研究领域：粒子物理实验；粒子物理

Ph.D. (University of California, San Diego)
Research field: Experimental particle physics, astroparticle physics

俞江帆 YU, Jiangfan
助理教授
Assistant Professor

院长青年学者
香港中文大学博士
研究领域：微 / 纳米机器人；医疗机器人；生物医学

Presidential Young Fellow
Ph.D. (The Chinese University of Hong Kong)
Research field: Micro/nanorobotics, medical robotics, biomedicine

尹峰 YIN, Feng
助理教授
Assistant Professor

院长青年学者、国际电气电子工程师学会高级会员

研究员博士
研究领域：贝叶斯机器学习及优化；信号处理；传感器融合；传感一体化系统

Presidential Young Fellow, IEEE Senior Member
Ph.D. (Technische Universität, Germany)
Research field: Bayesian machine learning and optimization, statistical signal processing, sensory data fusion, integrated communications, sensing, and localization system
张功球 ZHANG, Gongqiu
助理教授
Assistant Professor

香港中文大学博士
研究领域：金融工程；蒙特卡罗模拟；应用概率；信用风险；
机器学习

Ph.D. (The Chinese University of Hong Kong)
Research field: Financial engineering, Monte Carlo simulation, applied probability, credit risk, machine learning

张健全 ZHANG, Jianquan
助理教授
Assistant Professor

校长青年学者
香港科技大学博士
研究领域：功能材料；有机半导体材料；有机光电器件；
太阳能转换

Presidental Young Fellow
Ph.D. (The Hong Kong University of Science and Technology)
Research field: Functional materials, organic semiconductors, organic optoelectronic devices, solar energy conversion

张明建 ZHANG, Mingjian
助理教授
Assistant Professor

校长青年学者
中国科学院福建物质结构研究所博士
研究领域：微量材料与存储；锂/钠离子电池；正极材料；构效关系；原位表征技术

Presidental Young Fellow
Ph.D. (Fujian Institute of Research on Structure of Matter, CAS)
Research field: Energy conversion and storage, Li/Na-ion battery, cathode materials, structure-performance relationship, in situ/operando characterization techniques

张瑞晶 ZHANG, Yaojing
助理教授
Assistant Professor

香港中文大学博士
研究领域：硅光子学；集成非线性光子学；量子光子学；光
通信；二维材料

Ph.D. (The Chinese University of Hong Kong)
Research field: Silicon photonics, integrated nonlinear photonics, quantum photonics, optical communications, 2D materials

张瑞然 ZHANG, Zhuoran
助理教授
Assistant Professor

校长青年学者
多伦多大学博士
研究领域：医疗机器人；微纳尺度自动化；机器学习；机器
视觉；人工辅助生殖技术

Presidental Young Fellow
Ph.D. (University of Toronto)
Research field: Medical robotics, automation at nano/micro scales, computer vision, machine learning, assisted reproductive technology

赵征 ZHAO, Zheng
助理教授
Assistant Professor

校长青年学者
中国科学院上海有机化学研究所博士
研究领域：聚合诱导发光；材料响应材料；生物医学成像

Presidental Young Fellow
Ph.D. (Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences)
Research field: Aggregation-induced emission, stimuli-responsive materials, biomedical imaging

郑庆彬 ZHENG, Qingbin
助理教授
Assistant Professor

校长青年学者
香港科技大学博士
研究领域：纳米材料；透明电极材料；多功能柔性传感器；
材料表面与界面；纳米复合材料；分子模拟

Presidental Young Fellow
Ph.D. (The Hong Kong University of Science and Technology)
Research field: Nanocarbon materials, transparent conductors, multifunctional sensors, surfaces and interfaces of materials, nanocomposites reinforced with nanofillers, molecular simulations
**郑月 ZHENG, Yue**  
Assistant Professor  
Ph.D. (Nanyang Technological University)  
Research field: Hardware security, artificial intelligence security

**周凯 ZHOU, Kai**  
Assistant Professor  
Ph.D. (Tsinghua University)  
Research field: AI for science, physics with machine learning, high energy nuclear physics

**朱贺 ZHU, He**  
Assistant Professor  
Ph.D. (McMaster University)  
Research field: Metal-organic frameworks, polymers, porous materials

**卓晓璐 ZHU, Xiaolu**  
Assistant Professor  
Ph.D. (The Chinese University of Hong Kong)  
Research field: Plasmonics, nanophotonics, bio-nanotechnology

**陈怿 CHEN, Yi**  
Research Assistant Professor  
Ph.D. (The Chinese University of Hong Kong)  
Research field: Wireless communications, resource allocation and optimization, big data systems

**崔剑方 CUI, Jianfang**  
Research Assistant Professor  
Ph.D. (Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences)  
Research field: Asymmetric catalysis, organometallic chemistry, synthetic methodology, synthesis and application of fluorescent probes

**胡盛清 HU, Shengqing**  
Research Assistant Professor  
Ph.D. (Peking University)  
Research field: Differential equations and dynamical systems, KAM theory, Hamilton-Jacobi equation, variational method

**冀晓强 JI, Xiaoqiang**  
Research Assistant Professor  
Ph.D. (Columbia University)  
Research field: Control theory and engineering, intelligent robotic systems
涂文广 TU, Wenguang  
研究助理教授  
Research Assistant Professor  

南开大学博士  
研究领域：低维光电半导体材料表界面结构调控；太阳能驱动下的小分子转换  

Ph.D. (Nanjing University)  
Research field: Synthesis of low dimensional semiconductor material, solar energy driven small molecule conversion

王兆瑞 WANG, Zhaorui  
研究助理教授  
Research Assistant Professor  

香港中文大学博士  
研究领域：智能反射面辅助通信；海量机器类型通信；物理层网络编码  

Ph.D. (The Chinese University of Hong Kong)  
Research field: Intelligent reflecting surface assisted communications, massive machine type communications, physical-layer network coding

张泽中 ZHANG, Zezhong  
研究助理教授  
Research Assistant Professor  

香港大学博士  
研究领域：边缘学习；无线电地图感知；机器学习以及 BSG 技术包括通感一体化与大规模天线网络  

Ph.D. (The University of Hong Kong)  
Research field: Edge learning, radio map estimation, machine learning, and BSG technologies including integrated sensing & communication (ISAC) and massive MIMO networks

林立德 LAM, Kinley  
副教授 (教学)  
Associate Professor (Teaching)  

研究领域：设计和开发大型计算机系统，用于高性能、高可靠性和高可拓展性的关键任务应用，利用服务器集群和移动计算技术，并利用可扩展和基于分布式服务的架构设计  

Research field: Software engineering, software architecture, automation, network coding

黄俊波 HUANG, Junbo Mario  
助理教授 (教学)  
Assistant Professor (Teaching)  

加拿大滑铁卢大学博士  
研究领域：代数组合学；图论  

Ph.D. (University of Waterloo, Canada)  
Research field: Algebraic combinatorics, graph theory

凌皓 LING, Han  
助理院长 (学生事务)、助理教授 (教学)  
Assistant Dean (Student Affairs), Assistant Professor (Teaching)  

新加坡南洋理工大学博士  
研究领域：电致变色的材料与器件，以及其在智能窗、柔性显示器等方面的应用  

Ph.D. (Nanyang Technological University)  
Research field: Electrochromic materials and devices for thermal management of buildings
学术与科研 Academic and Scientific Research

研究院 Research Institute

- 深圳市人工智能与机器人研究院——深圳市十大行动计划（徐扬生教授）
  Shenzhen Institute of Artificial Intelligence and Robotics for Society (Prof. XU, Yangsheng)

- 深圳市大数据研究院——深圳市十大行动计划（罗智泉教授）
  Shenzhen Research Institute of Big Data (Prof. LUO, Zhiqian)

- 未来智联网络研究院（崔曙光教授）
  Future Network of Intelligence Institute (Prof. CUI, Shuguang)

- 香港中文大学（深圳）机器人与智能制造研究院（徐扬生教授）
  Institute of Robotics and Intelligent Manufacturing, the Chinese University of Hong Kong, Shenzhen (Prof. XU, Yangsheng)

- 深圳先进高分子材料研究院（朱世平教授）
  Shenzhen Institute for Advanced Polymer Materials (Prof. ZHU, Shiping)

- 深圳分子聚集体科学与工程研究院（唐本忠教授）
  Shenzhen Institute of Molecular Aggregate Science and Engineering (Prof. TANG, Ben Zhong)

重点实验室 Key Laboratory

- 机器人与智能制造国家地方联合工程实验室（徐扬生教授）
  National-local Joint Engineering Laboratory of Robotics and Intelligent Manufacturing (Prof. XU, Yangsheng)

- 广东省大数据计算基础理论与方法重点实验室（罗智泉教授）
  Guangdong Provincial Key Laboratory of Big Data Computing (Prof. LUO, Zhiqian)

- 广东省未来智联网络重点实验室（崔曙光教授）
  Guangdong Key Laboratory of Future Network of Intelligence (Prof. CUI, Shuguang)

- 广东省普通高校光电材料与芯片重点实验室（张昭宇教授）
  Key Laboratory of Optoelectronic Materials and Chips of Guangdong Higher Education Institutes (Prof. ZHANG, Zhaoyu)

- 先进有机高分子功能材料重点实验室（朱世平教授）
  Shenzhen Key Laboratory of Advanced Materials Product Engineering (Prof. ZHU, Shiping)

- 深圳机器人与智能制造工程实验室（徐扬生教授）
  Shenzhen Engineering Laboratory of Robot and Intelligent Manufacturing (Prof. XU, Yangsheng)

- 深圳市先进材料产品工程重点实验室（朱世平教授）
  Shenzhen Key Laboratory of Advanced Materials Product Engineering (Prof. ZHU, Shiping)

- 深圳市物联网智能系统与无线网络技术重点实验室（蔡小强教授）
  Shenzhen Key Lab of IoT Intelligent System and Wireless Network Technology (Prof. CAI, Xiaoqiang)

- 深圳市大数据和人工智能重点实验室（崔曙光教授）
  Shenzhen Key Laboratory of Big Data and Artificial Intelligence (Prof. CUI, Shuguang)

- 深圳市半导体激光器重点实验室（张昭宇教授）
  Shenzhen Key Laboratory of Semiconductor Laser (Prof. ZHANG, Zhaoyu)

- 深圳市分子聚集体功能材料重点实验室（唐本忠教授）
  Shenzhen Key Laboratory of Functional Aggregate Materials (Prof. TANG, Ben Zhong)

- 深圳市新药创制与合成重点实验室（黄乃正教授）
  Shenzhen Key Laboratory of Innovative Drug Synthesis (Prof. WONG, Nai Ching Henry)

- 深圳市群体智能驱动的低碳能源网络重点实验室（黄建伟教授）
  Shenzhen Key Laboratory for Crowd Intelligence Empowered Low Carbon Energy Network (Prof. HUANG, Jianwei)

- 深圳市环境材料与再生能源重点实验室（邹志刚教授）
  Shenzhen Key Laboratory of Environmental Materials and Renewable Energy (Prof. ZOU, Zhigang)
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校企共建联合实验室 Industrial Joint Labs

• 香港中文大学（深圳）-腾讯AI Lab机器智能联合实验室
  CUHK(SZ)-Tencent AI Lab Joint Laboratory on Machine Intelligence

• 香港中文大学（深圳）-京东集团人工智能联合实验室
  CUHK(SZ)-JD Joint AI Lab

• 香港中文大学（深圳）-纯白矩阵虚拟空间联合实验室
  CUHK(SZ)-White Matrix Joint Metaverse Laboratory

• 香港中文大学(深圳)-深圳市大数据研究院-华为未来网络系统优化创新实验室
  The Chinese University of Hong Kong (Shenzhen)-Shenzhen Research Institute of Big Data
  -Huawei Innovation Laboratory of Future Network System Optimization

• 港中大（深圳）-中科辰新卫星通信与遥感技术联合实验室
  CUHK(SZ)-CAS-NOVA Joint Laboratory of Satellite Communication and Remote Sensing Technology

• 港中大（深圳）-国家无线电监测中心检测中心频谱大数据联合实验室
  CUHKSZ-State Radio Monitoring Center Testing Center (SRTC) Spectrum Big Data Joint Laboratory

• 港中大（深圳）-金诚石化先进合成材料联合实验室
  CUHK(SZ)-Jincheng Advanced Synthetic Materials Joint Laboratory

• 港中大（深圳）-罗湖医院集团医疗大数据联合实验室
  CUHKSZ-LUOHU Joint Lab of Medical Big Data

• 港中大（深圳）-力牧生物联合实验室
  CUHK(SZ) - Boyaleap Joint Laboratory

• 港中大（深圳）-慕恩智慧家居物联网技术联合实验室
  CUHK(SZ) - DeRUCCI Joint Laboratory of Smart Home Technology

• 港中大（深圳）-网瑞遥感技术联合实验室
  CUHK(SZ) - MizarVision Joint Laboratory of Remote Sensing Technology

• 港中大（深圳）-圣蝶先进编码技术联合实验室
  CUHK(SZ) - Epsinf Technology Joint Laboratory

• 港中大（深圳）-科鹰三维立体显示技术联合实验室
  CUHK(SZ) - King Joint Laboratory of 3D Stereoscopic Display

• 港中大（深圳）-楠轩联合实验室
  CUHK(SZ) - Coating Focus Joint Laboratory of Agreement
博士后流动站 Postdoctoral Mobile Stations

材料科学与工程 Materials Science and Engineering

材料科学与工程是香港中文大学（深圳）自建校以来持续重点建设的学科之一，也是广东省攀峰重点学科及广东省高水平大学建设计划重点建设学科。根据科睿唯安公布的基本科学指标（Essential Science and Indicators, ESI）显示，我校工程科学、材料科学和化学先后在 2021 年、2023 年和 2024 年进入全球排名前 1% 学科。材料科学与工程由 7 位院士领衔，全职教师近 40 人，超过 40% 的教授入选“全球前 2% 顶尖科学家”榜单。截至目前，该学科已累计获批 8 个省市创新团队，已建成 2 个省级重点实验室，并与材料科学领域的多家企业共同建立了 3 个校企联合实验室。

该学科紧密围绕国家发展战略，专注于基础研究、高分子材料与工程、材料合成化学、材料物理与器件、纳米与催化材料及前沿交叉研究领域的重点建设，旨在建立国际一流的前沿科学研究基地，培养具有国际竞争力的复合型创新人才，为粤港澳大湾区乃至国家的经济产业发展提供有力支撑。

Materials Science and Engineering is one of the key disciplines continuously developed since the establishment of CUHK-Shenzhen. It is also a key discipline in the climbing plan of Guangdong Province and the construction plan of high-level universities in Guangdong Province. According to Clarivate’s Essential Science and Indicators (ESI), the research field of Engineering, Materials Science and Chemistry at CUHK-Shenzhen have ranked in the top 1% disciplines globally in 2021, 2023 and 2024, respectively. This discipline is led by 7 academicians, with nearly 40 professors, and over 40% of them are named on the "World's Top 2% Scientists" list. Currently, the discipline has obtained approval for 8 provincial and municipal innovation teams, established 2 provincial key laboratories, and set up 3 university-enterprise joint laboratories with leading companies in the field of materials chemistry, actively promoting applied research and the conversion of scientific and technological achievements, providing strong support for regional and national development.

The discipline is closely aligned with the national strategic needs, focusing on cutting-edge interdisciplinary research areas such as aggregation science, polymer materials and engineering, materials synthesis chemistry, materials physics and devices, nanomaterials and catalytic materials. It aims to establish a world-class frontier scientific research base, cultivate innovative talents with both international competitiveness and integration of Chinese culture, and contribute to the economic and industrial development of the Guangdong-Hong Kong-Macao Greater Bay Area and even the whole country.

计算机科学与技术 Computer Science and Technology

与数据科学学院共建 Co-built with the School of Data Science

计算机科学与技术是广东省高水平大学建设计划重点建设学科及广东省攀峰重点学科。2014 年起，我校机器人学科在 CSRankings 机器人领域排名中位列全国第一；2022 年，计算机科学与技术学科首次跻身 ESI 全球排名前 1% 学科。该学科围绕数据科学、人工智能、机器学习、信息系统、计算机网络与通信、计算机系统与云计算等前沿交叉领域重点建设，汇聚了理工学院和数据科学学院相关领域的师资力量。目前，该学科已建成一个由 110 余人组成的国际化一流教师团队，包括 6 位院士领衔，且近三分之一教授入选“全球前 2% 顶尖科学家”榜单。该学科已建成 1 个国家级实验室和 6 个省级重点实验室，并与华为、腾讯、京东等知名企业建立了 16 个校企联合实验室。

The Computer Science and the Guangdong Provincial High-level University Construction Plan and the Guangdong Provincial Climbing Peak Key Discipline. From 2014 to now, our university's robotics discipline has ranked first in the country in the field of CSRankings robots. In 2022, the discipline of computer science and technology entered the top 1% in the ESI global ranking for the first time. The Master of Science in Data Science program was shortlisted in the OS 2023 Master's in Business Analytics Ranking, ranking first in China and second in Asia. The discipline focuses on the key construction of frontier interdisciplinary fields such as data science, artificial intelligence, machine learning, information systems, computer networks and communication, computer systems and cloud computing. The discipline has brought together the teaching staff of the School of Data Science and the relevant fields of the School of Science and Engineering, and has built a first-class international teaching team with a total of more than 110 people, led by 6 academicians, and nearly one-third of the professors have been named on the "World's Top 2% Scientists" list. The discipline has established one national-level laboratory, six provincial key laboratories, and has established 16 school-enterprise joint laboratories with leading companies such as Huawei, Tencent, and JD.com.
Materials Characterization and Preparation Center (MCPC)

Center equipment includes the following equipments:

- Field Emission Transmission Electron Microscope
- Atomic Force Microscope
- 500M Nuclear Magnetic Resonance Spectrometer
- X-ray Diffractometer
- Magnetic Suspension Balance High-Pressure Isothermal Adsorption Instrument
- Transient/Steady-state Fluorescence Spectrometer
- Dynamic Mechanical Analyzer
- Broadband Dielectric Spectrometer
- Thermogravimetric Analyzer
- FIB-SEM Dual-Beam Scanning System
- Full-Spectrum High-Resolution Fluorescence Lifetime Confocal Microscope
- X-ray Photoelectron Spectroscopy
- Gas Chromatography-Liquid Chromatography-Quadrupole Time-of-Flight Mass Spectrometer
- Microscopic Laser Confocal Raman Spectrometer
- Universal Material Testing Machine
- Rotational Rheometer
- Scanning Electron Microscope

The laboratory area of the MCPC is about 800 square meters, and the investment of laboratory experimental equipment exceeds 72 million RMB, with 34 sets of large-scale instruments. It is a sharing test platform to open to the university and public.
翔龙鸣凤科学论坛  Long Feng Science Forum

Following the WUTONG Forum, Long Feng Science Forum is a registered trademark of School of Science and Engineering, CUHK-Shenzhen. It has three diversified academic activity modes: Main Forum, Seminar Series and Workshop Series.

截至 2023 年，已成功举办

主论坛 4 场
研讨会 22 场
系列讲座 105 场

覆盖各个学科领域，旨在促进学术交流，产生多元化观点碰撞，助力学校高层次人才的引进与发展。

By the end of 2023, 4 main forums, 22 workshops, and 105 seminars have been successfully held, covering various research fields. The forum aims to promote academic exchange and help the introduction and development of high-level talents in the university.

主论坛 Main Forum

• 2022 翔龙鸣凤科学论坛【2022.08】
  2022 CUHK-Shenzhen Long Feng Science Forum

• 2023 翔龙鸣凤科学论坛【2023.08】
  2023 CUHK-Shenzhen Long Feng Science Forum

• 2022 翔龙鸣凤科学论坛之 2022 全球青年学者论坛【2022.12】
  2022 Global Young Scholars’ Forum

• 2023 翔龙鸣凤科学论坛之全球青年学者论坛【2023.12】
  2023 Global Young Scholars’ Forum

论坛研讨会系列 Forum Workshop Series

• 界面问题的模型、理论与算法国际研讨会【2022.07】
  International Workshop on Interface Problems: Modeling, Theory and Numerics

• 第五届聚集成导发电国际研讨会【2022.08】
  The 5th International Symposium on Aggregation-Induced Emission (AIEs)

• 合成化学论坛【2022.10】
  Forum on Chemical Synthesis

• 数学与交叉科学论坛【2022.12】
  Forum on Mathematics and Interdisciplinary Sciences

• 第 31 届无线与光通信国际研讨会【2022.08】
  The 31st Wireless and Optical Communications Conference

• 非微分方程：分析、几何与拓扑的相互作用研讨会【2022.09】
  Partial Differential Equations: Interactions of Analysis, Geometry and Topology

• 功能材料前沿论坛【2022.11】
  Advances of Functional Materials

• 北京大学-香港中文大学（深圳）双边交流会【2023.05】
  Bilateral Exchange Conference between Peking University and CUHK-Shenzhen
其他论坛研究会议  Academic Forum/Seminar

- 纳米复合材料论坛【2023.05】
The 2023 Nanocomposite Forum of Long Feng Science Forum of The Chinese University of Hong Kong, Shenzhen

- 地热能与能源清洁利用论坛【2023.07】
Geothermal Energy and Clean Energy Utilization

- 2023物理研讨会【2023.07】
2023 Physics Symposium

- 2023 IEEE信号处理学会-通信学会感知通信一体化技术暑期学校【2023.08】
2023 IEEE SPS/ComSoc Summer School on Integrated Sensing and Communications

- 科学与哲学对话【2023.11】
Dialogue between Science and Philosophy

- 2023 IEEE Satellite 国际卫星计算大会【2023.11】
2023 IEEE International Conference on Satellite Computing

- 偏微分方程：数学与生态研讨会【2023.12】
Partial Differential Equations: Mathematics and Ecology

- 香港中文大学（深圳）-清华大学双边交流会【2023.06】
Bilateral Exchange Conference between CUHK-Shenzhen and Tsinghua University

- 2023 能源材料研讨会【2023.07】
2023 Energy Materials Workshop

- 第十九届全球华人化工学者学会研讨会青年学者（深圳）论坛【2023.08】
Frontier in Chemical Engineering 19th Global Chinese Chemical Engineers Symposium (GCCES-2023) (19th Annual Conference of Global Academy of Chemical Engineers) Young Researchers Forum (Shenzhen)

- 偏微分方程：分析、几何与拓扑的相互作用（二）【2023.11】
Partial Differential Equations: Interactions of Analysis, Geometry and Topology II

- 生物医用功能材料研讨会【2023.11】
Symposium on Functional Biomedical Materials

- 是德科技大学支持计划教室培训营【2023.12】
Train-the-teacher University Program

- 第三届网络经济博弈论坛【2023.12】
The 3rd Cybereconomy and Game Theory Forum

- 数据科学国际研讨会【2017.12】
International Workshop on Mathematical Issues in Information Sciences

- 统计学和数据科学研讨会【2018.12】
Workshop on Statistics and Data Science

- 工业数据科学深圳研讨会【2019.01】
Industrial Data Science Shenzhen Seminar

- 大气污染与健康工程科技论坛【2019.07】
Technological Forum on Air Pollution and Health Engineering

- 国际智能网络和通信系统研讨会【2020.01】
International Conference on Intelligence Networks and Communication System

- 梧桐论坛【2021.08】
WUTONG Forum

- 中国计算机大会【2021.10】
China National Computer Congress

- 大湾区科学论坛之数学与交叉科学研究论坛【2021.12】
The 2021 Greater Bay Area Science Forum – Mathematics and Interdisciplinary Sciences Sub Forum

- 数学与产业应用论坛【2023.02】
Forum on Mathematics and Industrial Applications

- 医学和健康科学创新研讨会【2018.12】
Symposium on Innovations in Medical and Health Sciences

- 前沿化学与材料院士论坛【2018.12】
Academician Forum on Frontier Chemistry and Materials

- 优化理论与应用研讨会【2019.07】
Workshop on Optimization Theory and Applications

- “大湾区高分子新材料及聚合产物产品工程”高端论坛【2019.10】
High End Forum of “Polymer New Materials and Polymer Products Engineering in the Greater Bay Area”

- 物理学科论坛【2021.07】
2021 Physics Forum

- 应用数学学术交流论坛【2021.09】
Frontier Applied Mathematics Forum

- 大湾区科学论坛之物质科学分论坛【2021.10】
The 2021 Greater Bay Area Science Forum – Physical Science Sub Forum

- 香港中文大学（深圳）-理工大学联合香港中文大学理学院、工程学院学术交流论坛【2022.02】
CUHK-CUHK(SZ) Academic Forum in Science and Engineering
Weekly Colloquium

The School of Science and Engineering (SSE) is committed to creating a platform for students and faculty members to exchange ideas and explore cutting-edge research developments in various fields of science and engineering. Starting from 2021 fall, SSE will organize the "Weekly Colloquium" series of seminars every Friday, inviting faculty members and distinguished guest speakers from outside the university to conduct academic seminars. By the end of 2023, 52 seminars have been successfully held.

SSE Talk

The School of Science and Engineering (SSE) encourages faculty members to invite scholars and industry experts from outside the university to deliver talks aimed at broadening students' horizons and exposing them to cutting-edge information across various academic disciplines and industries. From 2022 to 2023, 127 talks have been held successfully.
学生培养
Students Cultivation

理工学院现已培养五届优秀毕业生，他们在升学和就业方面均展现出了高质量的表现。本科生拥有大量机会加入教授的研究团队，在指导下参与项目实践，发掘研究兴趣。学院鼓励并支持学生参与国内外各类竞赛，以此提升学生的科学素养。此外，大学和学院也开设了多个交流交换和本硕联合培养项目，为学生提供更广阔的国际化学习和发展平台。学院注重丰富学生的课余活动，9个学生社团覆盖不同的学科领域，丰富多样的社团活动和学院活动为学生提供了学习交流机会。

SSE currently has five batches of graduates, who have demonstrated strong competitiveness in further study and employment. SSE students have ample opportunities to join professors’ research teams to engage in research projects, helping them exploring their research interests. SSE encourages and supports students to engage in various domestic and international competitions to enhance their scientific literacy. CUHK-Shenzhen and SSE have offered exchange/visiting programs and Bachelor-Master programs to provides students international academic opportunities. Furthermore, SSE also place emphasis on extracurricular activities, with 9 student associations focused on different academic fields, offering students with diverse association activities and school activities to learn and relief academic pressure.
SSE Career 成立于 2018 年，致力于为理工学院学生提供全面的升学就业规划指导。通过整合学校、学院及企业资源，提供多样化、专业化的升学与就业赋能项目，培养学生职业规划意识，帮助学生认识、规划职业发展目标，提高其就业竞争力及实现职业发展目标。

Founded in 2018, SSE Career is committed to providing well-rounded career guidance for all SSE undergraduates. Through integrating the resources of the university, school and companies, SSE conducts various professional further study and employment activities, aiming to raise students’ awareness of career planning, enhance their competitiveness and enable them to realize their career paths.

愿景 Vision
将激情转化为目标，助力学生职业发展
Put student’s passion into purpose, champion every step of student's career development.

升学与就业赋能项目
Empowerment Activities for Further Study and Employment

一对一咨询
One-on-One Counseling
与学院升学就业指导老师
with SSE Career
与外部咨询
with external consultancy
与学长学姐
with senior schoolmates

职业导师
Career Mentor

校友分享
Alumni Sharing

线上 / 线下升学申请系列课程
Online/Onsite Serial Seminars for Graduate School Application

线上 / 线下就业系列课程
Online/Onsite Serial Seminars for Job Searching

简历 / 面试工作坊
Curriculum Vitae Review/Mock Interview for Job Searching

行业分享讲座
Industrial Talks

全职 / 实习岗位分享
Full-time/Internship Post Sharing

2023届本科毕业生就业率
The Employment Rate of the Class of 2023

2023年，理工学院迎来了第五届本科毕业生，共计194人。整体就业率达到95.36%，持续保持高质量态势。

In 2023, the fifth batch of SSE graduates completed the study, for a total of 194 students. The overall employment rate of SSE is 95.36%.
毕业生去向
Graduate Placement

理工学院自成立以来，已培养了五届优秀本科毕业生，共计1024人。在复杂的国际形势和严峻的就业环境下，五届本科毕业生的总体就业率高达96.29%，在名校入读比例、就业岗位等方面都展现出较强的竞争力。

SSE currently has five batches of graduates, for a total number of 1024 students. Under the complex international situation, the overall employment rate reaches 96.29%, demonstrating the competitiveness of graduates.

就业
Employment

五届毕业生中，18.16%的同学选择直接就业，0.39%的同学选择自主创业。就业去向呈多元化分布，大部分学生选择在微软、华为、腾讯、百度、德勤、字节跳动等知名企业任职；也有些同学选择进入国有企业、公立学校、事业单位及政府部门任职；或前往哈佛大学、卡耐基梅隆大学、香港中文大学等世界顶尖院校担任科研助理。

Among five batches of graduates, 18.16% of students enter the job market, and 0.39% of them embark on entrepreneurship. The employment destinations exhibit a diverse distribution, with a majority of students choosing to work for renowned enterprises such as Microsoft, Huawei, Tencent, Baidu, Deloitte, ByteDance, and others. Some graduates choose to work in state-owned companies, public schools, and public institutions, while others pursue research assistant roles at top-tier universities, such as Harvard University, Carnegie Mellon University, The Chinese University of Hong Kong, and more.

部分就业单位 (含2019-2023届毕业生)
Partial Notable Companies and Organizations (Class of 2019-2023 are all included)

部分就业单位 (含2019-2023届毕业生)
Partial Notable Companies and Organizations (Class of 2019-2023 are all included)

*排名不分先后 The companies are listed in no particular order

毕业生代表及就业单位（含2019-2023届毕业生）
Notable Companies that SSE Graduates Working (Class of 2019-2023 are all included)

· 唐艺铭、章大同、林恺欣、沙元财等毕业后就职于华为
· 陈思博、叶晓星毕业后就职于微软（中国）
· 蔡雨航毕业后就职于亚马逊（中国）
· 谢叶博毕业后就职于商汤科技
· 黄志伟毕业后就职于阿里巴巴
· 兰一帆毕业后就职于字节跳动
· 石天宇毕业后就职于普华永道
· 丁敬超毕业后就职于百度
· 李志杰毕业后就职于德勤
· 李鑫毕业后就职于宝洁

· TANG Yiming, ZHANG Datong, LIN Kaixin, SHA Yuancai and other students work for Huawei
· CHEN Sibo and YE Xiaoxing work for Microsoft
· CAI Yujie works for Amazon
· XIE Yewang works for SenseTime
· HUANG Zhiwei works for Alibaba
· LAN Yifan works for ByteDance
· SHI Tianyu works for PwC
· DU Jingxin works for Baidu
· LI Zhijie works for Deloitte
· LI Xing works for Procter & Gamble
升学
Further Study

77.73% 的同学选择在海内知名高校继续深造，包括麻省理工学院、斯坦福大学、哥伦比亚大学、康奈尔大学、耶鲁大学、约翰霍普金斯大学、卡耐基梅隆大学、佐治亚理工学院、杜克大学、剑桥大学、牛津大学、帝国理工学院、苏黎世联邦理工学院、洛桑联邦理工学院、新加坡国立大学、香港大学、墨尔本大学等。

其中，约 12% 的同学获得了海内高校直博项目的录取，即每 8 名升学的学生中，就有 1 名学生直接攻读博士学位。

89.36% 的同学进入世界前 50 的海内高校攻读博士学位，包括斯坦福大学、麻省理工学院、哥伦比亚大学、加利福尼亚大学伯克利分校、卡耐基梅隆大学、密歇根大学安娜堡分校、多伦多大学、新加坡国立大学、香港中文大学等知名院校。

Among the five batches of SSE graduates, 77.73% of students decide to pursue postgraduate studies in renowned universities worldwide, such as Massachusetts Institute of Technology, Stanford University, Columbia University, Cornell University, Yale University, The Johns Hopkins University, Carnegie Mellon University, Georgia Institute of Technology, Duke University, University of Cambridge, University of Oxford, Imperial College London, ETH Zurich, Ecole polytechnique fédérale de Lausanne, National University of Singapore, The University of Hong Kong, University of Melbourne, and others.

About 12% of graduates have received Ph.D. offers from top universities. That is to say, one student, out of eight who pursue postgraduate studies, has successfully enrolled in the Ph.D. program. 89.36% of them pursue a Ph.D. degree in the top 50 universities worldwide, including Stanford University, Massachusetts Institute of Technology, Columbia University, University of California, Berkeley, Carnegie Mellon University, University of Michigan-Ann Arbor, University of Toronto, National University of Singapore, The Chinese University of Hong Kong, etc.


部分深造院校—硕士项目（含2019-2023届毕业生）
Partial Notable Universities - Master Program (Class of 2019-2023 are all included)
部分深造院校—博士项目（含2019-2023届毕业生）
Partial Notable Universities - Ph.D. Program (Class of 2019-2023 are all included)

| 中国香港中文大学（深圳） | The Chinese University of Hong Kong, Shenzhen | 39 |
| 中国香港中文大学 | The Chinese University of Hong Kong | 9 |
| 卡内基梅隆大学 | Carnegie Mellon University | 3 |
| 哥伦比亚大学 | Columbia University | 3 |
| 普渡大学 | Purdue University | 3 |
| 密歇根大学安娜堡分校 | University of Michigan-Ann Arbor | 2 |
| 佐治亚理工学院 | Georgia Institute of Technology | 2 |
| 威斯康星大学麦迪逊分校 | University of Wisconsin-Madison | 2 |
| 明尼苏达大学 | University of Minnesota, Twin Cities | 2 |
| 南加利福尼亚大学 | University of Southern California | 2 |
| 新加坡国立大学 | National University of Singapore | 2 |
| 香港科技大学 | The Hong Kong University of Science and Technology | 2 |
| 斯坦福大学 | Stanford University | 2 |
| 麻省理工学院 | Massachusetts Institute of Technology | 1 |
| 加利福尼亚大学伯克利分校 | University of California, Berkeley | 1 |
| 加州大学洛杉矶分校 | University of California, Los Angeles | 1 |
| 多伦多大学 | University of Toronto | 1 |
| 罗彻斯特大学 | Cornell University | 1 |
| 约翰霍普金斯大学 | The Johns Hopkins University | 1 |
| 伦敦玛丽女王大学 | Queen Mary University of London | 1 |
| 南洋理工大学 | Nanyang Technological University | 1 |

毕业生代表及深造项目（含2019-2023届毕业生）
Notable Program that SSE Graduates Attending (Class of 2019-2023 are all included)

- 林卓全获奖麻省理工学院运筹学博士项目
- 刘卓扬全获奖斯坦福大学运筹学博士项目
- 李肖鹏、黄承序、兰浩翔全获奖哥伦比亚大学运筹学博士项目
- 周明、李文华全获奖卡耐基梅隆大学电子计算机工程博士项目
- 徐健、程其康、樊震宇全获奖香港中文大学信息工程博士项目
- 王捷、张鸿浩全获奖佐治亚理工学院工业工程博士项目
- 吴澜全获奖新加坡国立大学分析与运筹学博士项目
- 韩宗益、涂毅磊、张津、李建文入读苏黎世联邦理工学院硕士项目
- 李子琪、罗南煜、吴东泽入读牛津大学硕士项目
- 赵晓航入读哈佛大学通信系统硕士项目
- 刘思危入读剑桥大学应用数学硕士项目

- LIN Zhen enrolls in the Ph.D. programme of Operations Research at Massachusetts Institute of Technology with a full scholarship.
- XU Linning, CHENG Yuansi and FAN Yijun enroll in the Ph.D. programme of Information Engineering at The Chinese University of Hong Kong with a full scholarship.
- WANG Xia and ZHANG Honghao enroll in the Ph.D. programme of Industrial Engineering at Georgia Institute of Technology with a full scholarship.
- WU Lan enrolls in the Ph.D. programme of Business Analytics and Operations at the National University of Singapore with a full scholarship.
- HAN Zongyi, TU Yilei, ZHAO Ying and LI Yunwen enroll in the master’s programme at ETH Zurich.
- LI Ziqi, LUO Nanyu and WU Dongze enroll in the master’s programme at the University of Oxford.
- ZHAO Yihe enrolls in the master’s programme of Communications Systems at EPFL.
- LIU Siwei enrolls in the master’s programme of Applied Mathematics at University of Cambridge.
为培养本科生科学素养和提升学生的科学能力，理工学院鼓励学生从本科阶段开始参加科研项目。截至2023年，理工学院公开收集到本科生：

- 110篇一作论文发表
- 15项专利发明
- 18项参与科研项目

SSE encourages undergraduate students to participate in research training activities and projects to cultivate their scientific literacy and ability. By December 2023, SSE has publicly collected:

- 110 first-authored papers
- 15 patented inventions
- Participated in 18 research projects

论文发表（节选） Paper Publications (Selected)

  The paper “Vision-Guided UAV Landing on a Swaying Ocean Platform in Simulation” with CHEN, Lingpeng (Class of 2020) as the first author, was accepted by IEEE International Conference on Real-time Computing and Robotics 2023.

- 2019级张宝哲同学作为第一作者的论文“CoNi-MPC: Cooperative Non-inertial Frame Based Model Predictive Control”被IEEE Robotics and Automation Letters接收。
  The paper “CoNi-MPC: Cooperative Non-inertial Frame Based Model Predictive Control” with ZHANG, Baozhe (Class of 2019) as the first author, was included by IEEE Robotics and Automation Letters.

- 2020级倪Ĕ言同学作为第一作者的论文“A model of optimal portfolios based on optimization and Simulated Annealing Algorithm”被IEMSS 2022接收。
  The paper “A model of optimal portfolios based on optimization and Simulated Annealing Algorithm” with NI, Shang (Class of 2020) as the first author, was accepted by 2022 4th International Conference on innovations in Economic Management and Social Science.

专利获取（节选） Patents (Selected)

- 2020级吕旻恩同学的《针对多向共性体的系统识别方法以及相关设备》成功获得发明专利，其指导老师为理工学院魏晓教授和钱辉环教授。
  LYU, Minen (Class of 2020) acquired a patent supervised by Prof. JI, Xiaqiang and Prof. QIAN, Huihuan Alex.

本科生参与科研项目情况（节选） Undergraduate students’ participation in scientific research projects (Selected)

- 科研项目：维奈托克（稳粒白血病用药）中间体的化学合成
  2020级唐琛，导师为理工学院黄乃正教授、彭小水教授
  Scientific Research Project: The Synthesis of the Venetoclax Fragment
  TANG, Can (Class of 2020), supervised by Prof. Henry N.C. WONG and Prof. PENG, Xiaoshui from SSE

- 科研项目：基于深度强化学习的多无人机运动规划与控制
  2019级张宝哲，导师为理工学院林天麟教授
  Scientific Research Project: Multi-drone Motion Planning & Control via Deep Reinforcement Learning
  ZHANG, Baozhe (Class of 2019), supervised by Prof. Tin Lun LAM from SSE
理工学院历来积极鼓励并支持本科生参加国内外各类竞赛，包括美国大学生数学建模竞赛、丘成桐大学生数学竞赛、全国大学生数学竞赛、全国大学生数学建模竞赛等。理工学子在历年竞赛中斩获奖牌，截至 2023 年，理工学院共有：

本科校外竞赛获奖：625 人
参加国内竞赛：24 项
国际竞赛：7 项

SSE has always encouraged undergraduates to participate in domestic and international competitions, including MCM/ICM, S.-T. Yau College Student Mathematics Contest, CMC, CUMCM, etc. As of December 2023, a total of 625 SSE undergraduate students have been honoured in off-campus competitions, and participated in 24 national competitions and 7 international competitions.

2023 年美国大学生数学建模竞赛中，共 49 名理工学生获奖。其中，特等奖 2 人、优异奖（一等奖）3 人、荣誉奖（二等奖）3 人，成功参与奖（三等奖）41 人。

In the 2023 Mathematical Contest in Modeling/Interdisciplinary Contest in Modeling, a total of 49 SSE students were awarded. Among them, 2 students were honoured Outstanding Winner, 3 students were honoured Meritorious Winner, 3 students were honoured Honorable Mention, and 41 students were honoured Successful Participant.

2023 年全国大学生数学建模竞赛中，共 39 名理工学生获得 46 个奖项。其中，获得全国赛本科组二等奖 7 人，广东省赛本科组一等奖 11 人，本科组二等奖 7 人，本科组三等奖 21 人。

In the 2023 China Undergraduate Mathematical Contest in Modeling, a total of 39 SSE students won 46 awards. Among them, 7 students won the second prize in the undergraduate group in the National Competition, 11 students won the first prize in the undergraduate group in Guangdong Sub-competition, 7 students won the second prize in the undergraduate group, and 21 students won the third prize in the undergraduate group.

2023 年第十五届全国大学生数学竞赛“广东赛区”暨第十三届广东省大学生数学竞赛中，共 12 名理工学子获奖。其中，一等奖 2 人，二等奖 5 人，三等奖 5 人。

In the 15th National College Student Mathematics Competition “Guangdong Division” and the 13th Guangdong College Student Mathematics Competition in 2023, a total of 12 SSE students were awarded. Among them, 2 students won the first prize and 5 students won the second prize, and 5 students won the third prize.

大学荣誉与奖学金 University Honors and Scholarship

截至 2023 年，理工学院本科生共有：

59 人获得大学荣誉奖项：学生优秀领导力奖、卓越服务奖、校园文化贡献奖、校园大使奖、优秀学生奖、优秀学生干部奖、优秀志愿服务奖、跨文化交流贡献奖、创新创意个人奖。

78 人获得政府类奖学金：国家奖学金、国家励志奖学金、深圳大运留学基金会奖学金、广东省政府来粤留学生奖学金、“中国大学生自强之星”奖学金。

As of December 2023, for SSE undergraduate students:

- 59 of them won university honors: Excellent Student Leadership Award, Excellent Service Award, Campus Culture Development Award, University Ambassador Award, Excellent Student Award, Excellent Student Leader Award, Excellent Volunteer Service Award, Multicultural Achievement Award and Creativity and Innovation Award.
### Global Exposure

更新至2024年2月 Updated to February 2024

截至目前，港中大（深圳）开展实质性交流与合作的境外名校伙伴数量超过140所，遍布世界33个国家和地区，各类国际合作项目超250个。

Up to date, CUHK-Shenzhen has developed over 250 international programs with more than 140 world-leading universities across 33 countries/regions, aiming to provide students with various opportunities for international engagements.

为培养国家急需的国际化人才，理工学院与全球多所知名院校保持着良好的合作关系，联合培养学生。目前，学院共开设了11个本硕联合培养项目，涵盖国家包括美国、加拿大、英国、新加坡。

To nature future high-end talents with global vision, cross-cultural capabilities and social responsibilities, SSE has currently launched 11 Bachelor-Master programs with world-renowned universities in the United States, Canada, the United Kingdom and Singapore seminars.

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<tr>
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<td>除布莱顿和萨塞克斯医学院以外的所有硕士项目均被纳入了萨塞克斯与港中大（深圳）之间的4+1项目</td>
<td></td>
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<tr>
<td></td>
<td>萨塞克斯大学（英国）</td>
<td>计算机工程/计算机科学/信息安全/技术创新与创业工程/工程管理</td>
</tr>
<tr>
<td></td>
<td>南卡罗来纳大学（美国）</td>
<td>应用金融</td>
</tr>
<tr>
<td></td>
<td>新加坡管理大学</td>
<td>量化金融</td>
</tr>
</tbody>
</table>

### Program Types

<table>
<thead>
<tr>
<th>Program Agreed</th>
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</thead>
<tbody>
<tr>
<td>Master of Science in Electrical Engineering</td>
</tr>
<tr>
<td>Master of Science in Mechanical Engineering</td>
</tr>
<tr>
<td>Master of Engineering in Nuclear Engineering/Materials Science and Engineering/ Master of Chemistry</td>
</tr>
<tr>
<td>Master of Computer Science/Electrical Engineering/Industrial Engineering and Operational Research</td>
</tr>
<tr>
<td>Master of Mathematics</td>
</tr>
<tr>
<td>Master of Business Administration/Professional Accountancy/Finance</td>
</tr>
<tr>
<td>Master of Science in Electrical Engineering and Computer Engineering</td>
</tr>
<tr>
<td>Master of Data Science/Software Engineering</td>
</tr>
<tr>
<td>Master of Science in Bioinformatics</td>
</tr>
<tr>
<td>Mater of Public Administration in Environmental Science and Policy (MPA-ESP)</td>
</tr>
<tr>
<td>All master’s programs in University of Sussex except those under Brighton and Sussex Medical School are included in the 4+1 program between University of Sussex and CUHK-Shenzhen</td>
</tr>
<tr>
<td>Master of Science in Computer Engineering/Computer Science/ Information Security/Technology Innovation and Entrepreneurial Engineering/Engineering Management</td>
</tr>
<tr>
<td>Master of Science or Engineering in Electrical Engineering/Biomedical Engineering/Mechanical Engineering</td>
</tr>
<tr>
<td>Master of Science in Applied Finance (MAF)</td>
</tr>
<tr>
<td>Master of Science in Quantitative Finance (MOF)</td>
</tr>
</tbody>
</table>
MathPi

When you think about mathematics, what comes to mind? Is it the tedious exams you have been taking since childhood, or is it the wisdom of geniuses? Perhaps it’s time for us to disenchant. Mathematics is the fundamental tool for exploring truth and establishing modern science. As a student association under the supervision of SSE, the MathPi is committed to focusing on cutting-edge theory and practical applications, providing mathematical services to teachers and students in various majors and fields throughout the university. We strive to cultivate an academic atmosphere for foundational disciplines within the school, allowing everyone to experience the beauty of mathematics while applying mathematical thinking and spirits to practical problems in various industries and fields.

Email: mathpi@link.cuhk.edu.cn

Computer @nd Comity

Founded by students who are interested in computer science and technology in 2015, Computer @nd Comity aims to promote the popularization of information and computer technology, and provide learning methods. Activities carried out by Computer @nd Comity include technology communication and academic competitions. All students who are interested in computer science and are welcome to join.

Email: cac@link.cuhk.edu.cn
区块链协会
0xCUHKSZ (Blockchain Association)

区块链协会是针对区块链的技术细节和创新应用设立的学生社团，旨在向同学们普及区块链知识，并为对区块链有兴趣的同学们提供交流的平台。社团将通过开展丰富多彩的区块链相关活动推广区块链技术，激发对区块链的思考，拓展对区块链的认识。社团还将建立与区块链业界的联系，为同学们对接行业内的资源，为有志进入区块链行业的同学提供机会。

0xCUHKSZ is a student association for the technical details and innovative applications of blockchain, aiming to popularize blockchain knowledge to students and provide a platform for students with the same interest in blockchain to communicate. The association will promote blockchain technology, stimulate thinking about blockchain, and expand the understanding of blockchain by conducting a variety of blockchain-related activities. The association will also establish connections with the blockchain industry, connect students with resources in the industry, and provide opportunities for students who wish to enter the blockchain industry.

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游戏研究社
Gaming Odyssey

游戏研究社是跨学科学术组织，旨在寻找游戏对学业和生活更积极的意义，并为我们对游戏感兴趣和有志于进入游戏行业的同学提供一个交流的平台。社团将关注游戏市场，联系企业资源，开展以讲座、研讨会为主的各类相关活动，拓展同学们对游戏行业的认识。同时也将会组织人员进行游戏的开发，参加各类游戏大赛等。

Gaming Odyssey of The Chinese University of Hong Kong, Shenzhen is a non-profit academic organization, aiming to find a more positive meaning of games in academic and life, and to provide a platform for students who are interested in games and aspire to enter the game industry. The association will focus on the game market, contact with enterprise resources, and carry out various related activities, mainly lectures and seminars, to expand students’ understanding of the game industry. We will also organize members to develop games and participate in various game competitions.

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物理协会
Physics Club

物理协会创办于2020年8月，是隶属于理工学院的学术性社团，致力于为热爱物理的同学提供交流的平台，目前已有百余名社员。现阶段，社团主要通过开设社课等活动，为擅长物理的同学提供分享知识、一展所长的空间，也为对物理感兴趣的同学创造了更多深入、系统地了解专业知识的机会。同时，社团也整合校内相关资源，在课内物理学习与课外生活两大方面，带领同学们感受物理的魅力。未来，随着理工学院在物理专业方面的进一步建设，社团将开展更加丰富多彩的活动，回应同学们的期待。

Physics Club of The Chinese University of Hong Kong, Shenzhen was founded in August 2020, and is an academic association affiliated with School of Science and Engineering (SSE), dedicated to providing a platform for students who love physics to communicate with each other. At present, the club mainly provides a space for students who are good at physics to share their knowledge and show their strengths through social classes and other activities, and also creates more opportunities for students who are interested in physics to learn more about the expertise in depth and systematically. At the same time, the club also integrates relevant resources on campus to lead students to experience the charm of physics in two aspects: in-class physics learning and after-school life. In the future, with the further construction of SSE, the club will carry out more diversified activities to respond to the expectations of students.

邮箱 Email：st.physicsclub@link.cuhk.edu.cn

针对课内物理的社课：社团邀请了经验丰富的学长以及物理课程的本科生助教（USTF），准备了不同难度的知识点巩固与深入讲座，帮助同学们在物理课程的学习中取得更佳的成绩。

Classes for in-class physics: Physics club invites experienced seniors and USTFs of physics courses to prepare consolidation and in-depth lectures of different difficulty levels to help students achieve better results in their physics courses.
化学协会
CUHKSZ Chemistry Association

化学协会（CUHKSZ Chemistry Association）由化学爱好者与研究者们于2022年1月自发组建并获得理工学院大力支持。协会旨在搭建起化学自学平台，为每一位热爱化学的同学提供自学途径与交流平台。化学协会主要开展学科科普、知识剖析、科研前沿、兴趣课堂等各类活动。化学协会管理层分为主席团、学术部、宣传部、外联部、财务部、活动部六大门派，目前正处于发展壮大阶段。欢迎每一位热爱化学，愿意近距离感受化学的同学加入化学协会的大家庭中！

CUHKSZ Chemistry Association was formed in January 2022 by chemistry enthusiasts and researchers with the support of the School of Science and Engineering. The association aims to build a platform for self-learning chemistry and to provide a platform for self-learning and communication for all students who love chemistry. The Chemistry Association is mainly engaged in various activities such as subject science, knowledge analysis, research frontiers, and interest classes. The management of the Chemistry Association is currently in the stage of development and growth. We welcome all students who love chemistry and are willing to experience chemistry up close to join us!

邮箱 Email: st_chem_association@link.cuhk.edu.cn

量化交易与投资协会
Quantitative Trading and Investment Association

本协会是专注于发展量化交易人才的学术类学生组织。协会将组织对量化研究兴趣浓厚且学术能力优秀的同学使用传统金融、数理统计、机器学习等方法对二级市场进行量化研究，产出高质量的量化策略、学术论文等研究成果。同时，协会将组织希望从事量化交易的同学，对其进行专业技能的培训与考核，为提升升学与发展提供帮助。

Quantitative Trading and Investment Association is an academic student organization that focuses on developing quantitative trading talents. The association will organize students who are interested in quantitative research and have excellent academic ability to conduct quantitative research on secondary markets using traditional finance, mathematical statistics, machine learning and other methods, and produce high-quality quantitative strategies, academic papers and other research results. At the same time, the association will provide professional skills teaching and training to students who wish to engage in quantitative trading, helping them in their further education and career development.

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学生社团
Student Associations

新能源学会
New Energy Association

新能源学会为以新能源为志趣的同学提供信息交流、技能提升与资源链接的开放平台，致力于为成员、学校、学术界和新能源产业创造价值。

未来，新能源学会将有两条主线并行：一是常规分享线，既会邀请本专业老师讲解学术研究，也会邀请本专业学长学姐分享就读体验、成长路径；二是平台社交线，通过搭建新能源科学与工程专业的伙伴社群和组织有趣的线下活动，形成互帮互助、资源共享的成长氛围。两者分别解决知识学习、技能培养和同辈交流的需求，共同构成了新能源学会的核心使命。

New Energy Association provides an open platform for students who are interested in new energy to exchange information, improve their skills and link up resources, and is committed to creating value for members, schools, academia and the new energy industry.

New Energy Association have two main parallel lines: the first is the regular sharing line, in which teachers of the major will be invited to talk about academic research, and senior students of the major will be invited to share their study experiences and growth paths; the second is the social line, in which a community of partners of the new energy science and engineering major and offline activities will be built to form a growth atmosphere of mutual help and resource sharing. The two lines address the needs of knowledge learning, skills development and peer exchange respectively, and together form the core mission of the New Energy Association.

邮箱 Email: st_nea@link.cuhk.edu.cn

香港中文大学（深圳）国际电气与电子工程师协会学生分部
CUHKSZ IEEE Student Branch

本组织是 IEEE（国际电气与电子工程师协会）在香港中文大学（深圳）建立的学生分部，是学术性服务型组织。

宗旨：精准而深入地打破 ECE 等 IEEE 相关专业里的各种信息壁垒。精准指的是我们主要立足于服务于 IEEE 方向，深入是指我们不仅要深入了解学生群体，了解他们的诉求，也会争取更有针对性的学术与业界资源。开展多样的学术活动，提升 IEEE 方向同学专业素养。建立与维护各类社区，加强 IEEE 方向同学之间的联系。

It is a student branch of IEEE (International Institute of Electrical and Electronics Engineers) established at The Chinese University of Hong Kong, Shenzhen as an academic service-oriented organization.

Our aim is to break down barriers to information in ECE and other IEEE-related disciplines in a precise and in-depth manner. Accurate means that we are primarily based on and serve the IEEE direction, and in-depth means that we not only reach out to the student community to understand their needs, but also seek more targeted academic and industry resources. We will develop a variety of academic activities to enhance the professionalism of our IEEE students. Build and maintain communities to strengthen the ties between IEEE students.

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1. Verdict理工，颐享新春 SSE Winter Cheer
2-3. 香港中文大学（深圳）首届科学嘉年华 CUHK(SZ) The First Science Festival
4. 2023届本科生毕业典礼 Graduation Ceremony for Bachelor Degree Graduates
5. 星途璀璨·逐光而行 2023届本科生毕业晚会 SSE Graduation Dinner

6-9. “与理同行，乐享青春”迎新系列活动 Happy SSEer - 2023 Orientation Event
10-13. 理工咖啡角 SSE Coffee Corner (2023.8)
14. 开学典礼 SSE Freshmen Orientation Ceremony
15. 新生训练营 New Student Orientation
16. 新生秋游 SSE Autumn Outing
17. 深圳信立泰药业股份有限公司参观 Visiting Shenzhen Salubris Pharmaceuticals Co., Ltd.
18. 院长面对面 Dialogue with Dean

理工达人秀 SSE’s Got Talent
25-27. “璀璨理工，智创未来” 迎新系列活动 2022 Orientation Event
28. “携手摘星，赋能未来” 理工学院体验营 SSE Winter Camp
29. 2024届本科生毕业典礼 Graduation Ceremony for Bachelor Degree Graduates

2024校园开放日 2024 Open Day
联系方式 Contact Us

学院热线 Hotline
0755 8427 3833

学院官网 Official Website
https://sse.cuhk.edu.cn/

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