# DEPARTMENT OF COMPUTER SCIENCE

# 資訊科學系



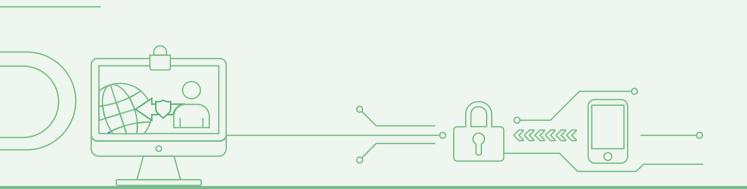
## 資訊科學(榮譽)理學士學位課程

Bachelor of Science (Hons) in Computer Science

本課程旨在為學生提供專業的資訊科技知識和理論,透過實踐,讓學生無論在商業或工業的 领域下,皆能開發精密的電腦系統。與此同時,讓學生與時並進,配合資訊科技發展迅速的 步伐,發展其個人專業,兼能具有強烈的社會使命感、全球視野以及獨立的自學能力。除了 課程的核心及進階科目,為學生進修博碩士課程及從事研究工作作好準備之外,本系還提 供在職實習計劃,使學生在畢業前獲得實際工作經驗,提升競爭力。

This programme provides students with advanced theoretical and practical computer science knowledge and skills, enabling them to develop sophisticated computer systems for the IT environment of the commercial and industrial sectors. Our students will acquire a strong sense of social commitment, global vision and independent self learning ability. Our students will acquire a strong sense of social commitment, global vision and independent self learning ability. Our students are equipped with the ability to develop their personal and professional prospects, keeping pace with the rapid progress of the technology in computer science. The programme also prepares the students to pursue postgraduate education and research. As we value practical experience as an important form of training, the Department arranges Integrated Work Studies (IWS) for students to gain practical working experience and enhance their competitiveness before graduation.

課程編號:503601 Programme Code:503601



## 課程結構

## **Programme Structure**

## 三項專業分流 | Three Streams

	軟件科技與智能計算 Software Technology & Intelligent Computing (STIC)	
通用必修 Common Required	英文、國文、電腦應用知識 English, Chinese, Computer Literacy	
	通識學科 General Education Courses	
課程必修 Programme Core	一級程度學科 Level 1 Courses	
	二級程度學科 Level 2 Courses	
課程必修 Programme Core	畢業專案 Final Year Project	
技術選修 Technical Electives	軟件科技與智能計算方面 in STIC area	
	6個 STIC 選修課 (IWS 等於 2個選修課 ) 6 STIC stream electives (IWS equal to 2 electives)	
選修課目 Free Electives	資訊科學系或其他學系所提供的課程 Courses offered by either the Department of Computer Science, or other departments.	
總共 Total		

IWS is optional 6 credits elective starting from Year 3 Summer semester to Year 4 Fall semester.

- \* 正在進行相關程序,将專業分流添加網頁與移動技術。
- \*The college is currently in the process of introducing a new stream of web and mobile technologies.

## YEAR 1 Foundation Level

Language & Communications

- Mathematics & Science
- CS/IT Foundation Courses
- General Education

## YEAR 2 Intermediate Level

Mathematic & Science

Computer Science Intermediate Level Courses General Education

網絡與互聯網系統 Networking & Internet System (NIS)	網頁舆移動技術 Web and Mobile Technology (WMT)	學分 Credits
英文、國文、電腦應用知識 English, Chinese, Computer Literacy		12
通識學科 General Education Courses		12
一級程度學科L	21	
二級程度學科 Level 2 Courses		36
畢業專案 Final Year Project		9
網絡與互聯網系統方面 in NIS area 6 個 NIS 選修課	網頁與移動技術方面 in WMT area	10
6 個 NIS 選修課 (IWS 等於 2 個選修課 6 NIS stream electives (IWS equal to 2 electives)	*6 個 WMT 選修課 (IWS 等於 2 個選修課 6 WMT stream electives (IWS equal to 2 electives)	18
資訊科學系或其他學系所提供的課程 Courses offered by either the Department of Computer Science, or other departments.		15
		123

## YEAR 3 Advanced Level

Computer Science Intermediate Courses

- General Education
- Free Electives

## YEAR 4 Advanced Level

WMT stream

WMT electives

IWS (Optional)

Project

NIS stream

NIS electives

IWS (Optional)

Project

STIC stream

STIC electives

IWS (Optional)

Project

## 學習與校園生活

## LEARNING AND CAMPUS LIFE

## 為了讓學生得到全面的教育,並發展他們的社交和人際交往技巧,本學系舉辦多項活動以豐富學生之學習生活,如:

- 專題講座(例如:知識産權講座、廉政公署的防止貪污講座等)
- 工作坊(例如:職業工作坊、虚擬實境設計工作坊等)
- 學生活動 (例如:體驗利用人工智能 3D 牙科檢查)
- 參與軟件工程與開發國際會議

To provide students with a comprehensive education and develop their social and interpersonal skills, our department organizes various activities to enrich their learning experience, such as:

- ·Themed student seminars (e.g., Intellectual Property in Hong Kong, ICAC TALK "Anti-Corruption in IT Sector")
- ·Workshops (e.g., career Workshops (e.g., career workshops, virtual reality design workshops)
- ·Student activities (e.g., experiencing the dental check up by AI)
- · Participation in international conference on software engineering and development



虚擬實境設計工作坊
Virtual reality design

## 體驗利用 3D 口內掃瞄進行蛀牙檢查 及 2D 智能電話進行牙齦疾病檢測

Experience 3D intraoral teeth scanning to detect tooth decay andUse 2D teeth smartphone photos to detect gum disease





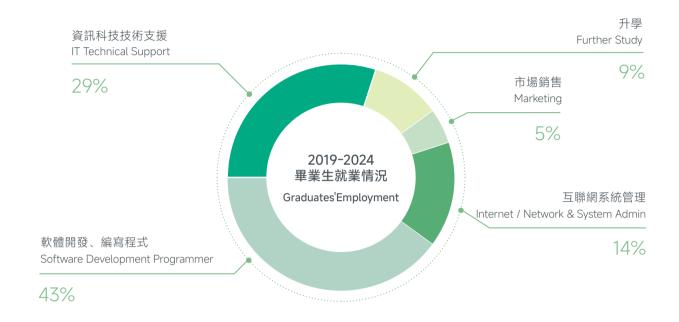


### 参與軟件工程與開發國際會議

conference on software engineering and development

## 就業與升學出路

## Career Prospects and Further Studies



## 可銜接碩士課程

## Articulation to Master Degree Programme

## 根據以往的數據顯示, 本課程的畢業生可在以下本地學院升讀碩士課程:

According to the past statistics, graduates from our programme can further their studies for a Master Degree in the following local institutions:

- 香港中文大學
- · The Chinese University of Hong Kong
- 香港科技大學
- · The Hong Kong University of Science and Technology
- 香港理工大學
- · The Hong Kong Polytechnic University
- 香港城市大學
- · City University of Hong Kong
- 香港浸會大學
- · Hong Kong Baptist University
- 香港珠海學院
- · Hong Kong Chu Hai College



## 學術研究

## Research

### 01/0ESS/2021

Building Envelope
Environmental
Performance
Optimization Teaching
Platform (BEEP)

## <del>PPPPPPPPP</del>

### UGC/1IDS14/B01/21

Extended Reality on Smart
Transport and Logistics:
Embracing Innovative Theories
and Technologies for Enhancing
Operational Resilience and
Efficiency

### UGC/FDS13/E02/18

Meteorological Visibility Estimation by using Particle Swarm Optimization and Neural Network (Prof. LO Wai Lun, HK\$ 580,275)

## 

### UGC/FDS13/F01/22

Automatic multiple-level gum disease detection based on deep neural based on deep neural network: algorithm and system (Dr. HSUNG Tai-Chiu, \$1,181,781)

## 

### T02/OFSS/2020

Development of real- time cooperative VR multi-CAVE systems for collaborative and team learning

## 

## UGC/FDS13/E01/20

Truthful Mechanism
Design for Facility
Location Game with
Agents' Migration
Scheme (Prof. LO Wai
Lun, HK\$ 1,012,003)

### UGC/FDS13/E01/21

Photovoltaic Panel Model Parameters Estimation and Monitoring by Using Artificial Neural Network (Prof. LO Wai Lun, HK\$ 914,925)

### RGC 17126021

Artificial Intelligence-Design of Maxillary Single-tooth Dental Prostheses

### RGC 17107321

Artificial intelligence-assisted orthodontic-orthognathic surgery planning to improve facial esthetics

### UGC/FDS13/E01/23

Automatic Landmark Object Extraction and Image-based Visibility Estimation System (Prof. LO Wai Lun, HK\$ 768,185)

## PPPPPPPPP

### HMRF 11221976

Detecting gum inflammation using artificial intelligencepowered smartphone photography among the older adults in Hong Kong

### Aw Boon Haw Foundation

A Metaverse System for Enhancing Interactivity, Enthusiasm and Collaborative Learning on Fine Art Logistics and Heritage Preservation

## 

### LIGC/IIDS13/F01/25

Seminar Series on Artificial Intelligence applications in Health Science and Dental Science (Prof. LO Wai Lun, HK\$184,100)

## <del>PPPPPPPPP</del>

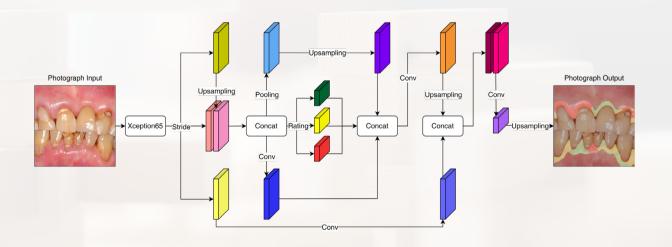
## UGC/FDS13/E06/25

Towards Graph-Based Learning System Under Diverse Graph Homophily: Method, Vulnerability and Robustness (Dr. ZHU Yulin, HK\$ 400,300)

## PPPPPPPPP

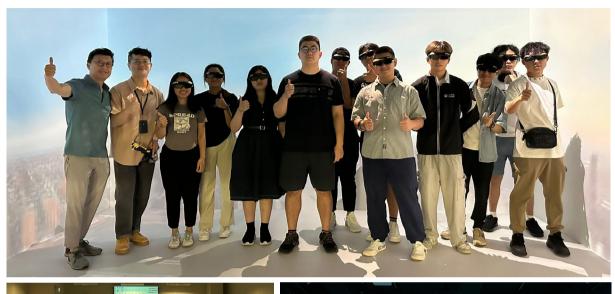
## UGC/FDS13/E03/25

Acoustic-based automated obstructive sleep apnea detection method (Dr. HSUNG Tai Chiu, HK\$1,022,981)



## 虚擬實境教學實驗室

## Virtual Reality Teaching Laboratory









學院設有虛擬實境教學實驗室,利用虛擬實境技術,模擬建築物的內外在環境,令用者置身其中。虛擬實驗的研究 與發展近年備受關注,亦被廣泛應用,如虛擬產品設計、室內環境設計、工程評估、電腦遊戲開發及電腦動畫模擬等。 虛擬實境教學實驗室可提供系統平台,讓學生學習編寫虛擬實境程式。

The College is equipped with a Virtual Reality (VR) Teaching Laboratory. Utilizing VR technology, the laboratory enables users to explore the outdoor and interior of a building from a simulated virtual representation. The research on VR and its development, while gaining significant attention in recent years, have been widely applied in different areas, for example, VR product design, interior design, engineering assessment, game development, simulation of computer animation, etc. The VR Teaching Laboratory offers a computing platform for students to learn to write VR programms.



## 校友感言 | Message from Alumni



黄浩賢 | WONG Ho Yin

## 2024 年資訊科學 (榮譽) 理學士畢業生 Graduate of 2024

從小對科技的熱愛,讓我選擇了資訊科學系,而在這裡,我真正理解了科技的本質,掌握了專業知識和技能。在珠海學院度過的日子,讓我可以深入學習,亦有機會在職場實踐,充實而精彩。感謝教授們的悉心指導,讓我在畢業後能順利進入職場,並在資訊科技行業找到了自己的位置,每天都在實現自己的夢想。

My passion for technology from a young age led me to choose the Computer Science programme where I truly understood the essence of technology and acquired professional knowledge and skills. My time at Hong Kong Chu Hai College allowed me to delve deeply into my studies and gain practical experience in the workplace, making it both fulfilling and exciting. I am grateful to the professors for their careful guidance which enabled me to smoothly transition into the workforce and find my place in the information technology industry where I amrealizing my dreams every day.



譚嘉晉 │ TOM Ka Chun

## 2024 年資訊科學 (榮譽) 理學士畢業生 Graduate of 2024

感謝大家在這段旅程中的支持與陪伴,四年的學習讓我不僅掌握了 Computer Science 的知識,更學會了如何面對挑戰與成長,感謝老師們的 教導和同學們的友誼,讓我在這裡度過了充實而難忘的時光。未來的路上, 我將帶著這些寶貴的經驗和回憶,勇敢前行,追求夢想。謝謝大家!

I am thankful for the support and companionship throughout this journey. The four years of study not only equipped me with knowledge in Computer Science but also taught me how to face challenges and grow. I appreciate the teachers' guidance and the camaraderie of my classmates which made my time here enriching and unforgettable. As I move forward I will carry these valuable experiences and memories with me bravely pursuing my dreams . Thank you all!



## 林燦 | LIN Can

## 2022 年資訊科學 (榮譽) 理學士畢業生 Graduate of 2022

四年本科生活讓我接觸了電腦科學的各個領域。豐富了我對電腦科學各領域的理解。敬業的教授們傳授了全面的知識。激發了我對知識的熱情。在他們的推薦下,畢業後我有幸繼續前往香港浸會大學就讀碩士課程。

The four-year undergraduate life exposed me to various fields of computer science and enriched my understanding of them. The dedicated professors imparted comprehensive knowledge and ignited my passion for learning. With their recommendations, I was fortunate to continue my studies in a master's programme at Hong Kong Baptist University after graduation.



## 鄧日聰 │ TANG Yat Chung Human

2019 年資訊科學 (榮譽) 理學士畢業生 Graduate of 2019

在珠海學院的校園生活很充實,有很多實践知識的機會,有幸能代表學校参加程式設計比賽。畢業後馬上有公司聘請,感謝教授們的教導。

Campus life at HKCHC is very fulfilling, and provide us with a lot of opportunities to practice. I was honoured to participate in the programming commpetition as a school representative. I got a job once graduated, I would like to say thank you to my teachers for teaching me a lot.







## 董文斌 | TUNG Man Pan

## 2018 年資訊科學 (榮譽) 理學士畢業生 Graduate of 2018

小時候總天真地以為自己每天在用手機就代表對科技十分了解,然而在修 讀資訊科學系課程後才真真正正地認識和了解電子世界。畢業後,藉著在課 程所掌握的知識和思維技巧,如願進入資訊科技行業。現擔任開發人員,致 力於開發 VR 項目。

When I was young, I always thought that using my mobile phone every day meant I knew a lot about technology. After studying Computer Science, I realized that what I knew before was just the superficial knowledge. With the knowledge and thinking skill acquired in the degree course, I am equipped to step into the information technology industry. And I am now a developer working on VR projects.

