

# Department of computer science and information engineering

## Introduction

### History

Department of computer science and information engineering (CSIE) of Yuanpei University was accredited by the Ministry of Education, and started to admit undergraduate students in 2002. The success story of the Department already spans for more than ten years. Today, the CSIE has got the IET accreditation since 2007.



### Features

#### Curriculum

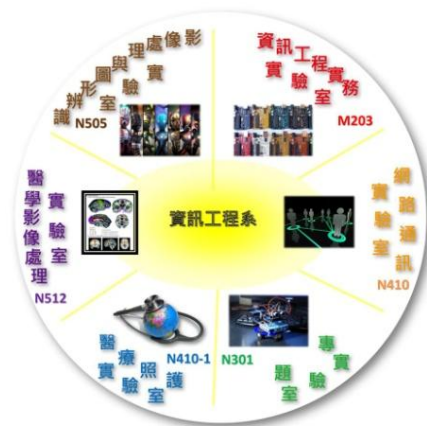
The curriculum content is computer science, incorporating studies in areas, such as introduction to computer science, programming design, application of internet, multimedia, application of software packages, data structure, robotic application, database, computer animation, interactive web site design, project management. In order to comply with practical training protocol, the Department has been aggressively recruiting preeminent teaching network and software companies in Taiwan as practical training



sites for CSIE students. The research projects would not only enhance the quality of teaching and learning, but also benefit health policy making at varying levels via the significant findings and recommendations.

## Faculty

The faculty and staff in the department maintain diverse image processing, network management and software development interests, and they are also good at their skill sets with these technologies. The number of full-time teachers at the department is 15, containing 2 professor, 4 associate professors, 8 assistant professors, and 1 senior lecturer.



## Facilities

The department has six practical classrooms/laboratories, these computer laboratories have specific software information they are: Information engineer practice lab, network communication lab, project lab, healthcare lab, medical image processing lab and image processing and pattern recognition lab. In the network communication laboratory students learn network management for CISCO networking system. There are several specific areas of interest in research. Three dimensional (3D) image processing both for general and medical purposes. Developing games for internet and mobile phones games and developing Android apps for phones and creating Android platforms for online ordering.

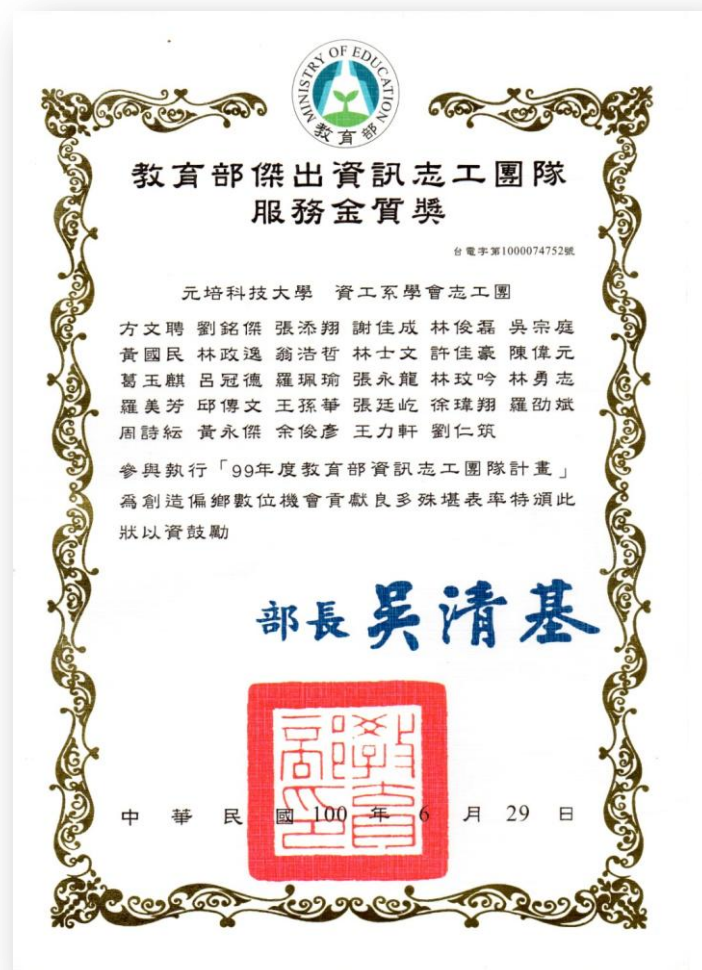


## Career Development

1. Students can pursue a higher degree at home or abroad in related fields, such as information engineering, electrical engineering, electronics engineering, information management, business administration, commerce and industrial engineering.
2. Students can develop a career in APP software and system software development, medical informatics, information management, hardware application, sales in related industries, and education.

## Degrees Offered

■ Bachelor



## Mission & Objectives

### Educational Objectives

Program	Objectives
<b>Undergraduate</b>	<ol style="list-style-type: none"> <li>1. Cultivate self-learning habits and the capabilities of solving problems.</li> <li>2. Teach students about developing and applying information system to solve the professional problems.</li> <li>3. Train students to develop their team spirit and to enhance their coordination and communication skills.</li> <li>4. Foster humanistic quality and holistic education.</li> </ol>

### Core Competences

Program	Competences
<b>Undergraduate</b>	<ol style="list-style-type: none"> <li>1. Be able to apply knowledge of math, science and engineering to solve problems.</li> <li>2. Be able to design and to perform experiments as well as to analyze and to interpret the data.</li> <li>3. Be able to exercise professional skills into practice and to find better solutions.</li> <li>4. Be able to design computer science related systems, elements, and processes.</li> <li>5. Be able to communicate efficiently in a team.</li> <li>6. Be able to recognize, to analyze and to resolve computer science related problems.</li> <li>7. Be able to realize how the engineering technologies make an influence on the society as well as on the world, and to cultivate the lifelong learning habits and capabilities.</li> <li>8. Be able to understand the ethical and social responsibilities.</li> </ol>

# Curriculum

Undergraduate Program of Department of computer science and information engineering, Yuanpei University(Academic Year 2014)

Year 1			
Required	Credits	Elective	Credits
Introduction to Computer Science	3	Electronics	3
Introduction to Multimedia	3	Calculus	3
Foundation of Programming Design	3		
The Application of internet	3		
Programming Language	3		
Introduction to Network	3		
Application of Software Packages (I)	3		
Introduction of Cloud Computing	3		
Introduction to Management in the Healthcare Industry	2		
Year 2			
Required	Credits	Elective	Credits
Object Oriented Programming	3	Physics	3
Application of Software Packages (II)	3	Wireless Communications	2
Data Structure	3	Information Career Planning	2
Robotic Application	3	Applications of electronics	3
2D Computer Animation	3	Digital Logical Designs	3
Programming on Mobile Devices	3	Linear Algebra	3
Windows Application Design	3	Discrete Mathematics	3
Web Design	3	User Interface Design	3
		Basic Photography	3
		Algorithms	3
		Introduction to Imagine Processing	3
		Digital Logic Labs	2
Year 3			
Required	Credits	Elective	Credits
Database	3	Practice on Multimedia	3
Foundation of 3D Computer Animation	3	Operation System	3
Interactive Web Site Design	3	Guide Reading on Technology Document	2
Project Management	3	Computer Organization	3
Software/Hardware Project (1)	3	Production of Short Films	3
Network and System Practice	3	Electronic Commerce	3
Software/Hardware Project (2)	3	Practice on Image Processing	3



Information Security	3	2D Design Using AutoCAD	3
Game Programming Design	3	Computer Graphics	3
		Introduction to Embedded Systems	3
		Practice of Information Certificates	3
		Web Database	3
		Introduction to Augmented Reality	3
		Introduction to Medical Image Processing	3
Year 4			
Required	Credits	Elective	Credits
Practice on Information Engineering	3	Linux/Android Practice	3
		Extra Internship(1)	3
		Extra Internship(2)	3
		Extra Internship(3)	3
		Software/Hardware Project (3)	3
		Implementation of Embedded System	3
		Application of Open Source Code	3
		Research of Digital Industry	3
		Medical Image Processing Practice	3
		Motion-Sensitive Game Design	3
		Interactive display technology Applications	3
		Mobile Multimedia Application	3
		Mobile Computing	3
		Extra Internship(4)	3
		Extra Internship(5)	3
		Extra Internship(6)	3
		Network Marketing Practice	3
		Image Sharing	

## Faculty and Staff

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## Research

The specialties of the research are divided into three areas: image processing, network management and software development. CSIE's faculty will actively solicit and apply for funding from IT institutes, such as CISCO, Industrial Technology Research Institute (ITRT), Ministry of Science and Technology (MST), and IT companies.