

中正大學課程大綱(CCU Course Syllabus)

資訊工程研究所(Graduate Institute of Computer Science and Information Engineering)

課程名稱(中文)(Course Title (Chinese))：	電腦視覺	開課單位(Teaching Unit)：	資訊工程研究所(Graduate Institute of Computer Science and Information Engineering)		
課程名稱(英文)(Course Title (English))：	Computer Vision	課程代碼(Course Code)：	4105109_01		
授課教師(Lecturer)：	江振國				
學分數(Number of Credits)：	3	必/選修(Mandatory/Elective)：	選修(Elective)	開課年級(Year)：	研究所，開放大三大四
先修科目或先備能力(Prerequisites)：	Linear Algebra Optimization Basic Programming Skills				
課程概述(Course Introduction)：	Researchers in computer vision have been developing techniques for recovering the three-dimensional shape and appearance of objects in imagery. We now have reliable techniques for accurately computing a partial 3D model of an environment from thousands of partially overlapping photographs. There are two major themes in the computer vision literature: 3D geometry and recognition. The first theme is about using vision as a source of metric 3D information: given one or more images of a scene taken by a camera with known or unknown parameters, how can we go from 2D to 3D, and how much can we tell about the 3D structure of the environment pictured in those images? The second theme is all about vision as a source of semantic information: can we recognize the objects, people, or activities pictured in the images, and understand the structure and relationships of different scene components just as a human would?				
學習目標(Learning Goals)：	1.The discipline of 2.Provide a unified perspective on the different aspects of computer vision. 3.Give students the ability to understand vision literature. 4.Give students the ability to implement components to many modern vision systems.				
教科書(Textbook)：	Textbook: Computer Vision: Algorithms and Applications, Richard Szeliski Reference Book: Computer Vision: A Modern Approach, David Forsyth and Jean Ponce, Prentice Hall				