國立台灣科技大學 114學年 第2學期　課程大綱

Spring 2026 NTUST Course Outline

授課教師：林宗翰

Instructor:Tzung-Han Lin

課程名稱：電腦視覺與應用演算

Course Title：Computer Vision and Applications - Tutorial

2026/11/3

課程代號：CS4805304 Course Code 學分數：1 Credits	必選修：必修/半學年 Required/Electve:Required/Half Yr. 先修課程： Prerequisites
節次教室：T10(IB-511-1) T9(IB-511-1) Time/Location	
專業核心能力： Core Professional Competencies	□具備數理與邏輯推演能力 □具備發掘與解決問題能力 □具備產業實作應用與系統整合能力 □具備外語閱讀能力與國際觀
課程網址： Course Website	
課程宗旨： Course Objectives	1. Familiar with computer vision tool and algorithm 2. Balance the learning of computer vision theory and practice for real applications
課程大綱： Outline of Lectures	1. Pin-hole camera practice 2. Projective 2D geometry practice, 3. Camera models practice, 4. Projective 3D geometry practice, 5. Camera calibration practice, 6. Epipolar geometry practice, 7. Multiview and 3D reconstruction practice, 8. Applications on stereo vision practice, 9. Applications on augmented reality practice.
授課方式： Method of Instruction	講授 Lecture：60% 分組討論 Group discussion：20% 案例研討 Case study：20% 操做練習 Practical exercises：0% 講授 Lecture：%
教科書： Textbooks	Slides and materials will be provided during this semester.
參考書目： References	1. Multiple View Geometry in Computer Vision," Richard Hartley and Andrew Zisserman, 2nd Edition Cambridge University Press. 2004. (ISBN: 0521540518) 2. "Computer Vision, A Modern Approach," David A. Forsyth and Jean Ponce, Prentice Hall.
修課須知： Notice	

評量方式： Grading	60% - assignment 25% - attendance 15% (+ 10%)- feedback and discussion
備註說明： Notes	EMI lecture. Pre-request skills: programming in either python or other languages. All assignment will be implemented and verified by computer programming codes.