朝陽科技大學 098學年度第2學期教學大綱
Mechanical Measurement and Data Acquisition 檢測訊號量測與擷取

當期課號	7133	Course Number	7133
授課教師	賴俊仁	Instructor	LAI,JIUNN REN
中文課名	檢測訊號量測與擷取	Course Name	Mechanical Measurement and Data Acquisition
開課單位	營建工程系博士班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	本課程之主要目的乃在使學生瞭解各種感測元件之運作原理、以及各種量測誤差來源並避免造成量測誤差。透過課堂教學與實習操作，使學生能利用各種感測元件進行物理量之量測及撰寫Lab VIEV TM 程式記錄量測訊號，進而分析及呈現檢測訊號。	Objectives	The objective of this course is to teach the students the principle of sensing element for measuring physical properties such as displacement, velocity, acceleration and force in mechanical measurement. By class lecture and laboratory experiment, the students will learn how to measure the physical properties and how to covert the analog signal into digital form for further processing and final presentation. The students in this class will also learn the source of errors in mechanical measurement and how to minimize these errors.
教材	1. 課堂講義. 2. LabVIEVTM Measurement Manual, National Instrument.	Teaching Materials	1. Class Note. 2. LabVIEVTM Measurement Manual, National Instrument.
成績評量方式	平時10%；實驗報告30%；期中考30%；期末考30%	Grading	Attendance:10%；Lab Report:30%；Midterm Exam:30%；Final Exam:30%
教師網頁	http://www.cyut.edu.tw/~jrlai		
教學內容	a. 各種感測元件之運作原理。 b. 利用各種感測元件進行物理量之量測。 c. LabVIEV圖形化程式介紹。 d. 撰寫程式記錄檢測訊號。 e. 分析及呈現檢測訊號。	Syllabus	a. Principle of sensors。 b. Measurement of psysical properties。 c. Introducing of LabVIEV developing system。 d. Programing for data aquizition。 e. Processing and presentation of measured data。

尊重智慧財產權，請勿非法影印。