朝陽科技大學 093學年度第2學期教學大綱
Adaptive Signal Processing 適應性訊號處理

當期課號	7708	**Course Number**	7708
授課教師	謝政勳	**Instructor**	HSIEH,CHENG HSIUNG
中文課名	適應性訊號處理	**Course Name**	Adaptive Signal Processing
開課單位	資訊工程系碩士在職專班一A	**Department**	
修習別	選修	**Required/Elective**	Elective
學分數	3	**Credits**	3
課程目標	本課程的目標是讓大學生和研究生瞭解適應性訊號處理的原理與應用。適應性訊號處理有許多應用，特別是在數位通信系統，雷達，生物醫學工程。這門課程提供一個基本原理來廣泛的含蓋適應性處理的範圍。它包括各式各樣的適應性訊號處理算法，例如LMS算法，RLS 算法和一些應用，例如適應性的干擾刪除，噪聲消除，等等。	**Objectives**	The goal of this course is to introduce seniors and graduate students the principles and applications of adaptive signal processing. Adaptive signal processing has a wide variety of applications, particularly, in digital communication systems, radar, biomedical engineering and others. This course provides a comprehensive coverage of the basic principles of adaptation. It covers various adaptive signal processing algorithms such as the LMS algorithm, RLS algorithms and some applications, such as adaptive interference canceling, noise cancellation, etc.
教材	Adaptive Filter Theory, by Simon Haykin, 4th Edition, Prentice-Hall, 2002. (高立圖書代理)	**Teaching Materials**	
成績評量方式	小考與作業 40% 期中考 30% 專題報告 30%	**Grading**	Test and home work 40% Midterm exam. 30% Project 30%
教師網頁			
教學內容	1. 簡介 2. 隨機過程與模型 3. 溫納濾波器 4. 線性預測 5. 最陡坡度法 6. 最小均方調適性濾波器 7. 應用	**Syllabus**	1. Introduction 2. Stochastic processes and models 3. Wiener filters 4. Linear prediction 5. Steepest descent method 6. Least-mean-square adaptive filters 7. Applications