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②国玄東華大學

課 網 Course Outline 電機工程學系學士班半導體工程組

中文課程名稱 Course Name in Chinese		自動控制系統					
英文課程名稱 Course Name in English		Automatic Control Systems					
科目代碼 Course Code		EE_33600	班 別 Degree	學士班 Bachelor's			
修別 Type		學程 Program	學分數 Credit(s)	3. 0	時 數 Hour(s)	3. 0	
先修課程 Prerequisite		(無)		'	,		
課程目標							
Course Objectives							
學習控制系統之穩定度分析、控制器設計方式、以及控制相關軟硬體設備之認識與應用							
系教育目標 Dept.'s Education Objectives							
1	專業人才培育—奠立學生專業知能,培育產業技術人才。 To cultivate talents with basic professional knowledge						
2		■ I I I I I I I I I I I I I I I I I I I					
3	創新思維啟發—具備自我學習能力,啟發創新思維模式。 To inspire students with creative thinking						
4	多元學翌月劃—訓練觸粨亭诵 B.维,拉養其太科姑 茁立 閱讀 湛诵 能 力。						
系專業能力 Basic Learning Outcomes			力相關性 Correlati between (Objective Dept.'s	課程目標與系專業能 力相關性 Correlation between Course Objectives and Dept.'s Education Objectives			
A	培育具備工程、應用數學與物理科學等數理知識之基本能力。 To cultivate the basic knowledge of engineering, applied mathematics and physics.						
В	To cultivate the	B育系統分析、模擬驗證、實作實現之能力。 O cultivate the basic ability of analysis, verification and mplementation of systems.					
С	訓練軟體工具使用與硬體實務驗證相互輔助之能力。 C To train the auxiliary ability between the utilization of software tool and the verification of the hardware practice.						

D	訓練電機本知學能技術與工程實務相互結合運用之能力。 To train the integrate ability between professional instinct in learning technique and engineering practice.	
Е	落實專題製作之群體合作與團隊競爭之能力。 To fulfill the ability of group cooperation and teamwork competition.	
F	落實發掘問題、邏輯分析、克服瓶頸與持續學習之能力 To fulfill the ability of question finding, logical analyzing, bottleneck overcoming and continuous learning.	
G	了解學術倫理與智慧財產觀念,掌握產業更迭需求與具備多元專長之能力。 To obtain the ability of multi-specialization and to meet the industry demand as well as to have the ability of academic ethics and concept of intellectual property	
Н	了解國內外市場變化,具備基本科技英文閱讀溝通之能力。 To understand the change of global market and the have the basic ability of reading and conversation in English.	

圖示說明Illustration : ● 高度相關 Highly correlated ○中度相關 Moderately correlated

課程大綱 Course Outline

- 1. 控制系統簡介
- 2. 數學基礎與系統模型
- 3. 信號流程圖
- 4. 物理系統之建模
- 5. 狀態空間分析
- 6. 線性系統之穩定度
- 7. 控制系統之時域分析
- 8. 根軌跡
- 9. 頻域分析
- 10. 控制系統設計

資源需求評估(師資專長之聘任、儀器設備的配合・・・等)

Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

投影機、黑白板、擴音

課程要求和教學方式之建議

Course Requirements and Suggested Teaching Methods

黑板書寫為主,並配合相關投影片播放

其他

Miscellaneous