



## 課 綱 Course Outline

### 資訊工程學系人工智慧與創新應用碩士班

中文課程名稱 Course Name in Chinese	智慧物聯網技術與應用				
英文課程名稱 Course Name in English	Intelligent IoT technologies and applications				
科目代碼 Course Code	AIIA50100	班 別 Degree	碩士班 Master' s		
修別 Type	選修 Elective	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					
課程目標 Course Objectives					
By introducing the origins, history, architecture, and other related contents of the Internet of Things and wireless communication technology, students can acquire basic concepts first. Together with various experiments and industry cases, they can gain experience in developing IoT-related applications.					
系教育目標 Dept.' s Education Objectives					
1	探究學科知識，善用專業技能 Explore academic knowledge, utilize professional skills.				
2	訓練評析思考，創新解決問題 Exercise analytical thinking, enhance creative problem solving skills.				
3	學習團隊分工，強化溝通表達 Participate in teamwork, strengthen communication skills.				
系專業能力 Basic Learning Outcomes				課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.' s Education Objectives	
A	統合資工知識技術之能力 Ability to integrate knowledge and technologies of computer science and information engineering.			●	
B	設計技術理論驗證實驗之能力 Ability to design and conduct science experiments and to validate hypotheses.			●	
C	資訊軟硬體設計開發之能力 Ability to design and develop computer software and hardware.			●	

D	團隊專案開發之能力 Ability to design and develop team projects.	○
E	批判性思考與創新研發之能力 Ability of analytical thinking, creative research planning, and innovative development.	○
圖示說明Illustration：● 高度相關 Highly correlated ○ 中度相關 Moderately correlated		
課程大綱 Course Outline		
-智慧物聯網介紹(Introduction of AIoT) -物聯網的架構(Architecture of IoT) -物聯網：感知層技術(Perception layer) -物聯網：網路層技術(Network layer) -物聯網：應用層技術(Application layer) -物聯網雲端平台/物聯網感測器平台(IoT platform) -智慧物聯網實驗(AIoT experiment)		
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.)		
Existing suitable full-time teachers		
課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods		
Class lectures, assignments, lab sessions and term project		
其他 Miscellaneous		