國立勤益科技大學 **107** 學年度 資訊工程系 碩士班學分計畫表

Curriculum Planning of 2018 Master's Degree in Department of Computer Science and Information Engineering

科目	Subjects	上學期 First Semester		下學期 Second Semester	
		學分 Credits	學時 Hour	學分 Credits	學時 Hour
必修科目(10 學分) Required Courses (10credits hours)					
第一學年 First Year					
專題討論(一)	Seminar（Ⅰ）	1	2		
專題討論(二)	Seminar（Ⅱ）			1	2
第二學年Second Year					
專題討論(三)	Seminar（Ⅲ）	1	2		
專題討論(四)	Seminar（Ⅳ）			1	2
論文	Papers	3	3	3	3
專業選修科目 Department Required Courses					
第一學年 First Year					
模糊理論與應用	Fuzzy Theory and Applications	3	3		
電腦視覺	Computer Vision	3	3		
數位影像處理	Digital Image Processing	3	3		
嵌入式系統專論	Monograph of Embedded System	3	3		
科技英文寫作(一)	Technology English Writing（Ⅰ）	3	3		
自動機原理	Automata Theory	3	3		
★影像辨識	Image Recognition	3	3		
★雲端計算與服務	Cloud Computing and Services	3	3		
JAVA 企業應用	Java Enterprise Application	3	3		
*風能理論與案例分析	Wind Energy Theory and Case Studies Analysis	3	3		
*工業 4.0 網路實務	Industry 4.0 Network Practice	3	3		
*即時著色	Real-Time Rendering	3	3		
★智慧型設備通訊	Smart Device Communication			3	3
★巨量資料分析	Big Data Analytics			3	3
科技英文寫作(二)	Technology English Writing（Ⅱ）			3	3
伺服系統管理	Linux Server and System Administration			3	3
醫學影像分析	Medicine phantom analysis			3	3
信號處理系統設計	System Design in Digital Signals			3	3
系統性創新理論與應用	Systematic Innovation and TRIZ Methodology			3	3
網路協定工程	TCP/IP Protocols			3	3
物件導向系統分析	Object-Oriented Systems Analysis and Design			3	3
電腦視覺專論	Advanced Computer Vision			3	3
★校外實務研究(暑期)	Graduate On-Site Research(Summer)			3	3
*電池管理系統	Battery Management System			3	3
*感測與監控	Sensor and Supervisory Control			3	3
*工業通訊技術	Industrial Communication Technique			3	3
第二學年 Second Year					
超啟發式演算法	Meta-heuristic algorithm	3	3		
多媒體編碼技術	Multimedia Coding Techniques	3	3		
機器學習	Machine Learning	3	3		
編程方法論	Programming Methodology	3	3		
計算方法	Theory of Computation	3	3		
深度學習實務	Programming in Deep Learning	3	3		
★校外實務研究(一)	Graduate On-Site Research(I)	3	3		
*高等控制工程	Advanced Control Engineering	3	3		
*數位 IC 設計	Digital IC Design	3	3		
*高頻電路設計	RF Circuit Design	3	3		
人工智慧	Artificial Intelligence			3	3
多媒體安全技術	Multimedia Security Technology			3	3
巨量多媒體技術	Large-scale multimedia technology			3	3
高等演算法	Advanced Algorithms			3	3
★校外實務研究(二)	Graduate On-Site Research(Ⅱ)			3	3
*生醫電子與訊號處理應用	Biomedical Electronics and Signal Processing			3	3
*電力電子技術與實務	Power Electronics Technology and Practice			3	3
*實用天線設計	Practical Antenna Design			3	3

備註 Note：

1.畢業至少應修 34 學分：必修 10 學分(含論文 6 學分、專題討論 4 學分)，選修 24 學分（專業選修至少 24 學分）。(各系自行調整)

Before graduation, each student should complete at least 34 credits, includes 10 required credits (Thesis 6 credits and Seminar 4 credits) and 24 elective credits (at least 24 credits should be completed in department elective courses).

2.學生於畢業前須修過「學術研究倫理教育課程」必修 0 學分(6 小時)課程。

Before graduation, each student should complete Academic Research Ethics Education Course, which is 6 hours required course with 0 credit.

3.研究生必須通過碩士班論文口試，方准予畢業。畢業時，依法授予工學碩士學位。

Only if graduate student pass master's degree treatise oral examination, then can graduation. When graduated, school will award master of engineering's academic degree.

4.課程名稱加註『★』為經電資學院所屬系課程委員會審議通過之「鴻海學分學程班」開設課程，凡電資學院所屬學生皆可選讀，修習及格可認定為所屬系之專業選修課程。

Course name add『*』means has through belong to college of electrical engineering and computer science's course committee meeting deliberation to adopt「Hon Hai credit program class」offer course, any college of electrical engineering and computer science's student all can choose, study pass then can maintain belong to one's affiliation subject major elective credits course.

5.本系研究生徵得指導教授同意後，始可參與校外實習；另外，研究生校外實習之工作類型限定為資訊工程相關領域，職務必須為研發或設計工作等具備專業能力之工作項目。依據本校「國立勤益科技大學學生校外實習課程開設要點」第四條第三項「修讀實習課程期間，除依各系自訂之定期返校座談會或研習活動等外，學生應全職於實習機構實習。」，故同學修習「校外實務研究(一)」或「校外實務研究(二)」課程需全職於實習機構實習，另外，每週需與指導教授進行專題討論，並將專題討論相關紙本或電子檔資料留存，以做為「專題討論(三)」或「專題討論(四)」成績評量標準。

Graduate student award professor's agree, then can join off campus intern ;besides, graduate student off campus 's word limit about information engineering, position must be research and development or design work same as has major ability 's task item. According to our school 「National Chin-Yi university of technology student off campus intern course offer main point 」article four and third item 「during studying intern course, except any subject custom regular back to school's research and study meeting ,student should fall-time in intern mechanism. 」,so student study「Graduate On-Site Research(I) 」or「Graduate On-Site Research(Ⅱ) 」course should fall-time in interm mechanism, beside, student should success with professor every week, and keep any special topic success's paper and electric file save, to act as 「Seminar（Ⅲ）」or 「Seminar（Ⅳ） 」grade comment standard.

6.課程名稱加註「＊」為經學院所屬系課程委員會審議通過之全英文課程，凡院所屬外籍學生皆可選讀，修習及格可認定為所屬系之專業選修課程。