

課程資訊 (Course Information)					
科號 Course Number	10810COM 524200	學分 Credit	3	人數限制 Class Size	60
中文名稱 Course Title	晶片應用系統簡介				
英文名稱 Course English Title	Introduction to System-on-Chip and its Applications				
任課教師 Instructor	邱瀟德(CHIU, CHING-TE) <i>more information</i>				
上課時間 Time	M3M4W3	上課教室 Room	EECS資電 129		
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此科目對應之系所課程規畫所欲培養之核心能力 Core capability to be cultivated by this course	<ul style="list-style-type: none"> <li>■ 發掘、分析、解決問題與獨立研究之能力 (20%) The ability to discover, analyze, solve problems and to research independently. (20%)</li> <li>■ 通訊科技整合與創新之能力 (20%) The ability to integrate and innovate communication technology. (20%)</li> <li>■ 學習新知識與技術之能力 (20%) The ability to learn new knowledge and techniques. (20%)</li> <li>■ 良好溝通、表達與外語能力 (20%) The ability to communicate and express oneself effectively and to be proficient in foreign languages. (20%)</li> <li>■ 具團隊精神及遵守專業倫理 (20%) The ability to possess team spirit and to comply with professional ethics. (20%)</li> </ul>				
課程簡述 (Brief course description)					
<p>This course introduces what is System-on-Chip (SoC), benefits of using SoC, system architecture, design methodology and its applications. It uses several SoC designs, such as computer chip sets, cell phone IC, multimedia ICs, wireless communication ICs, information appliances and interface ICs, as examples to illustrate the top-down IC design flow, Intellectual Property(IP), system platform design and their market applications. The computer chip sets covers personal computer architectures, memory and peripheral I/O interface chip design. The cell phone IC covers heterogeneous multi-processor (HMP). The wireless communication includes CDMA, OFDM and LTE, 4G and 5G chip designs. The multimedia ICs covers audio, still image, and video, AR/VR ICs. The biomedical ICs covers Gene chip, Lab on a chip, and Ink-jet microarray. Emerging applications related SoC include autonomous vehicles, high resolution display, Internet of Things (IoT), 3D sensing, and deep learning acc</p>					
課程大綱 (Syllabus)					
<p>Course keywords: System-on-Chip (SoC), computer chip sets, cell phone IC, multimedia ICs, wireless communication ICs, information appliances and interface ICs</p> <p><a href="#">觀看上傳之檔案(.pdf)</a> (若無法直接開啟，請按右鍵，選擇 &lt; 另存目標 &gt; 後再行查閱 )</p> <p>If you can not read pdf file directly, please click <a href="#">the right button of the mouse to save the file first</a></p>					