

## 國立臺北大學電機工程研究所必選修課程教科書清單

### 【必修】

課程名稱	課程流水號	授課老師	教科書
高等計算機架構 Advanced Computer Architectures	M5027	沈榮麟	<ol style="list-style-type: none"> <li>1. Computer Organization and Architecture- Designing for Performance, 6th Ed., by William Stallings, 2003.</li> <li>2. Behrooz Parhami, Computer Architecture-From Microprocessors to Supercomputers , Oxford University Press, 2006</li> </ol>
電子設計自動化 Electronic Design Automation	M5068	詹景裕	<ol style="list-style-type: none"> <li>1. S. H. Gerez, Algorithms for VLSI Design Automation, John Wiley &amp; Sons.</li> <li>2. Sait Youssef VLSI PHYSICAL DESIGN AUTOMATION Theory and Practice, World Scientific.</li> <li>3. Naveed Sherwani, Algorithms for VLSI Physical Design Automation 3rd, KAP.</li> </ol>
專題研討 Seminar	M5099	詹景裕	演講者簡報內容。

### 【選修】

課程名稱	課程流水號	授課老師	教科書
容錯系統設計與分析 Design and Analysis of Fault-Tolerant Computer Systems	M5016	陳永源	<p>1.B.W. Johnson, Design and Analysis of Fault-Tolerant Digital Systems, Addison-Wesley, 1989.</p> <p>References:</p> <p>2.M.L. Shooman, Reliability of Computer Systems and Networks: Fault Tolerance, Analysis, and Design, Wiley, 2002, ISBN 0-471-29342-3.</p> <p>3.D.P. Siewiorek and R.S. Swarz, Reliable Computer Systems: Design and Evaluation, A.K. Peters, 1998.</p> <p>4.D.K. Pradhan (ed.), Fault Tolerant</p>

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			Computer System Design, Prentice-Hall, 1996. Paper study
進階資料庫系統 Advanced Database System	M5018	何善輝	Oracle 8i/9i/10g DBA and Developer PL/SQL & SQL 3/99
射頻積體電路設計 RF IC Design	M5032	劉萬榮	1.B. Razavi, RF Microelectronics, Englewood Cliffs, NJ: Prentice Hall, 1998. References: 2.T. H. Lee, The Design of CMOS Radio Frequency Integrated Circuits, Cambridge University Press, 1998. 3.David M. Pozar, Microwave and RF Wireless Systems, John Wiley, 2001. 4.G Gonzalez, Microwave Transistor Amplifiers: Analysis and Design, Englewood Cliffs, NJ: Prentice Hall, 1997.
混合訊號積體電路佈局與分析 Analysis and Layout of Mixed-Signal IC	M5036	黃弘一	Lecture notes Alan Hasting, The Art of Analog Layout
進階圖形演算法及其應用 Advanced Graph Algorithms and Applications	M5040	詹景裕	PPT 教學
類比積體電路設計 Analog IC Design	M5044	黃弘一	Lecture notes Design of Analog CMOS Integrated Circuits / Razavi Analog Integrated Circuit Design / Johns
固態電子學 Solid-State Electronics	M5100	劉萬榮	Semiconductor Physics and Devices/ Donald A. Neamen
高等計算機結構 Advanced Computer	M5103	沈榮麟	1.John L. Hennessy and David A. Patterson, Computer Architecture-- A Quantitative

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Architectures			<p>Approach, 4th Edition, 2007, Elsevier, Morgan Kaufmann.</p> <p>References:</p> <p>(1) Computer Organization and Architecture- Designing for Performance, 6th Ed., by William Stallings, 2003.</p> <p>(2) Behrooz Parhami, Computer Architecture-From Microprocessors to Supercomputers, Oxford University Press, 2006</p>
物件導向設計與分析 Object Oriented design and Analysis	M5159	何善輝	<p>Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Development, Third Edition. Craig Larman, 2005. Prentice-Hall. ISBN: 0-13-148906-2</p>
超大型積體電路設計 VLSI Design	M5180	陳永源	<p>1."VHDL for Engineers", by Kenneth L. Short, Pearson International Edition, 2009.(全華圖書代理)</p> <p>References :</p> <p>(1) "VHDL Coding and Logic Synthesis with SYNOPSIS", by Weng Fook Lee, Academic Press, 2000.</p> <p>(2) VHDL handout manuscript</p> <p>(3) One set of slides talking about the VLSI system design and the challenges.</p>
嵌入式系統設計與應用 Embedded Systems Design and Applications	M5117	陳永源	<p>1. "Embedded System Design - A Unified Hardware/Software Introduction" , Frank Vahid / Tony Givargis, 全華科技圖書 2002.</p> <p>2. Supplemental materials</p>
智慧電子應用設計概論 Introduction to the Design and Application of Intelligent Electronics	M5165	陳永源	<p>參考書目:</p> <ol style="list-style-type: none"> <li>1. ARM 微控制器簡介、ARM 程式設計與應用、及相關智慧電子應用</li> <li>2. ARM 微控制器車電開發平台及實習手冊</li> <li>3. 線傳轉向控制系統投影片</li> <li>4. 設計驗證及安全標準相關資料</li> </ol>

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			5. 相關論文介紹投影片
鎖相迴路設計與應用 PLL Design and Applications	M5038	黃弘一	Phase-Locked Loops Design and Applications/黃弘一
高階積體電路設計 Advanced IC Design	M5174	黃弘一	Digital VLSI Design/黃弘一
超大型積體電路設計 VLSI Design	M5036	黃弘一	Analog Integrated Circuits Design/黃弘一
行動裝置電源管理系統 應用專題 Special Topic on the Power Management Systems of Portable Devices	M5100	劉萬榮	.Power Management in Mobile Devices , Findly Shearer, Elsevier Inc. °
車輛工程 Vehicle Engineerin	M5227	楊棧雲	汽車最新高科技, 高根英幸著, 黃郁婷譯, 晨星出版社, 2011. 及自編教材
控制系統設計與模擬 Control System Design and Simulation	M5232	薩馬尼乎曼	Control Systems Engineering 6th Edition by Norman S. Nise