

# 電機學院/資訊學院碩士在職專班

## 碩士學位考試委員提聘資格認定書

|   |            |
|---|------------|
| 學生姓名：   | ○○○        |
| 學生組別：   | ○○組        |
| 學生學號：   | ○○○○○○○○○○ |
| 擬聘任碩士學位考試委員如下：(請說明闡述其邀請原因及其適切性之理由)  |            |
| <p>以下列業界口委：</p> <p>○○○博士有諸多與 dc/dc converter、driver、backlight 相關的 paper &amp; patent，有許多市場實際的技術，也是現在車用半導體功能安全的專家，對於半導體元件、ic 設計及他們的可靠度及可靠度設計相當了解。邀請○○老師從他的專業及經驗的角度審核論文，可以幫助擴大視野、激出更大的應用範圍，對彼此之間技術的擴大與發展有幫助。</p> <p>電機學院/資訊學院碩士在職專班○○○ (指導教授：</p> |            |

○○○教授、論文題目：應用於掃描式定電流 LED 驅動器的  
改進的低灰階增強技術以及抑制電流過衝和開路偵測) 擬於

□月□(□) 下午□: □口試。於口試委員申請名單內，

○○○博士為『獲有博士學位，且在學術上著有成就』之情況，故附上其簡歷及說明闡述其邀請原因及其適切性。

簡歷：

○○○ 半導體功能安全技術經理 (XXX)



E-mail: ○○○@gmail.com、○○○@sgs.com

學歷： 國立臺灣大學電機工程學系博士

電話： ○○○○○○○○○○

專長： 超大型積體電路、類比/混和式積體電路  
設計、電源管理 IC 設計、積體電路測試、  
ISO 26262 車輛半導體功能安全

### 學術專長

Power Management in DC-DC Converters

Analog/Mixed-Signal Circuit Design

High-Speed Communication Circuits

SiGe BiCMOS Technology

### 研究計畫

半導體功能安全技術

**Publication:** (請詳細列出)

I. Journal Paper List:

1. Li-Ren Huang, ling-Yang Jou, and Sy-Yen Kuo, " Gauss-elimination-based generation of multiple seed-polynomial pairs for LFSR," IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, pp. 1015-1024, 1997.

II. Conference Paper List:

1. Ke-Horng Chen, Chieh-Ching Chien, Hsin-Hsin Ho, and Li-ken Huang, "Optimum

Power-Saving Method for Power MOSFET Width of One-Cycle Control DC-DC Converters," IEEE Power Electronics Specialists Conference, pp. 1-5, 2006

2. Chia-Ming Tsai and Li-ken Huang, - A 24mW 1.25Gb/s 13k/spl Omega/transimpedance amplifier using active compensation," IEEE International Solid State Circuits Conference, pp. 894-903, 2006.

3. Chia-Ming Tsai and Li-Ren Huang, " A 21 mW 2.5 Gb/s 15 k $\Omega$  self-compensated differential transimpedance amplifier,- IEEE International Solid-State Circuits Conference, pp. 234-236, 2005.

4. Yu-Tsun Chien, Li-Ren Huang, Wen-Tzao Chen, Gin-Kou Ma, and Mukherjee, T., "SPEED: synthesis of high-performance large scale analog/mixed signal circuit," IEEE VLSI-TSA International Symposium on VLSI Design, Automation and Test, pp 112-115, 2005.

5. Day-Uei Li, Li-ken Huang, and Chia-Ming Tsai, "A 3.5-Gb/s CMOS burst-mode laser driver with automatic power control using single power supply," IEEE International Symposium on Circuits and Systems, pp. 5501-5504, 2005.

6. Chun-Chi Chen, Chia-Ming Tsai, Day-Uei Li, and Li-Rai Huang, " A 1.25 Gbps burst-mode receiver [C with extended dynamic range," IEEE Radio Frequency integrated Circuits (RFIC) Symposium, pp. 625-628, 2005.

7. Day-Uei Li, Li-Ren Huang, and Chia-Ming Tsai, "Low power consumption 10-Gb/s SiGe modulator drivers with 9Vpp differential output swing using intrinsic collector-base capacitance feedback network," IEEE Radio Frequency integrated Circuits (RFIC) Symposium, pp. 317-320, 2005.

8. Day-Uei Li, Chia-Ming Tsai, and Li-Ren Huang, "10-Gb/s SiGe modulator drivers

with 4.5 Vp, output swing," IEEE VLSI-TEA International Symposium on VLSI Design, Automation and Test, pp. 261-262, 2005.

9. Day-Uei Li, Chia-Ming Tsai, and Li-Ren Huang, "Fast switching gigabit's CMOS burst-mode transmitter for PON applications," IEEE VLSI-TEA International Symposium on VLSI Design, Automation and Test, pp. 257-260, 2005.

10. Tun-Shih Chen, Yan-Bin Luo, and Li-Ren Huang, "A 10 Gb/s clock and data recovery circuit with binary phase/frequency detector using TSMC 0.35 nm SiGe BiCMOS process," IEEE Asia-Pacific Conference on Circuits and Systems, pp.981-984, 2004.

11. Chun-Chi Chen, Chia-Ming Tsai, and Li-Ren Huang, "An 1.25 Gbit/s -29 dBm burst mode optical receiver realized with 0.35  $\mu$ m SiGe BiCMOS process using a PIN photodiode," IEEE Asia-Pacific Conference on Circuits and Systems, pp. 313-316, 2004.

12. Day-Uei Li, Chia-Ming Tsai, and Li-ken Huang, "Laser/modulator driver with high modulation output operating up to 14-Gb/s using 0.35  $\mu$ m SiGe BiCMOS process," IEEE Asia-Pacific Conference on Circuits and Systems, pp. 225-228, 2004.

13. Li-Ren Huang, Chia-Ming Tsai, Cheng-Yu Chien, Chien-Fu Chang, and Day-Uei Lee, "Chip set design for 10GB/s optical transceiver," IEEE Asia-Pacific Conference on Circuits and Systems, pp. 113-116, 2004.

14. Chia-Ming Tsai, Li-Ren Huang, Day-Vei Li, and Chien-Fu Chang, "10 Gb/s single-ended laser driver in 0.35  $\mu$ m SiGe BiCMOS technology," Proceedings of the 29th European Solid-State Circuits Conference, pp. 289-292, 2003.

15. Chen-Ken Ko, Li-Ren Huang, and Sy-Yen Kuo, "Fault management for adjustable pre-allocation wavelength division multi-access systems," IEEE International Conference on Communications, pp. 526-530, 1998.

16. Li-Ren Huang, Jing-Yang Jou, and Sy-Yen Kuo, "An efficient PRPG strategy by utilizing essential faults," Proceedings of the Fifth Asian Test Symposium, pp.

199-204,  
1996

17. Li-Ren Huang, Jing-Yang Jou, Sy-Yen Kuo, and Wen-Bin Liao, "Easily testable data path allocation using input/output registers," Test Symposium, 1996..  
Proceedings of the Fifth Asian, pp 142-147, 1996.

18. Li-ken Huang, Sy-Yen Kuo, and Ing-Yi Chen, "A Gauss-elimination based PRPG for combinational circuits," European Design and Test Conference, ED&TC,  
pp. 212-216, 1995

### III. Taiwan Patent List:

1. 陳科宏；黃立仁；黃宏瑋與郭斯彥「直流轉直流穩壓器以及誤差放大1(BOOST DC/DC CONVERTER)1，中華民國專利證書號 1312608.

2. 陳科宏；黃立仁；黃宏瑋與郭斯彥「延遲線及其應用之類比數位轉換裝置與負載感測電路(Delay Line and Analog-to-Digital Converting Apparatus and Load-Sensing Circuit Using the Same)1，中華民國專利證書號 1312238

3. 陳科宏；黃立仁；黃宏瑋與郭斯彥「電源供應裝置(Power Supply Apparatus)1，中華民國專利證書號 1310124.

4. 黃立仁；林崇偉與葉錦清「背光裝 I 與其光源亮度的控制技術 (Backlight System and Method for Controlling Brightness Thereof)1，中華民國專利證書號 1308468.

5. 郭俊誠；陳敦士與黃立仁「時脈產生電路及時脈回復電路 (Clock Generator and Data Recovery Circuit Utilizing the Same)1，中華民國專利證書號 1300293.

6. 李岱威；黃立仁與陳巍仁「自動功率控制之雷射驅動器 Laser Driver with Automatic Power Control)1，中華民國專利證書號 1287340

7. 陳科宏；黃立仁；張嘉榮與劉德賢「電容倍增電路 ((Capacitor Multiplier)1，中華民國專利證書號 1277109.

8. 郭俊誠與黃立仁「時脈資料回復電路 (Clock and Data Recovery

CIRCUIT)1，

中華民國專利證書號 1277302.

9. 李鍾熙；任建葳；馬金溝與黃立仁「用於助聽之無線系統及其方法 ( W[RELESS SYSTEM AND METHOD THEREOF FOR HEARJNG])」，中華民國專利書號 1277356.

10. 張虔輔與黃立仁「轉阻放大器之直流偏移消除電路及其自動增益控制之轉但放大器」，中華民國專利證書號 1261964.

11. 游爵豪與黃立仁「時脈資料回復裝置及方法 ( CLOCK AND DATA RECOVERY APPARATUS AND METHOD THEREOF)」，中華民國專利證書號 1242929.

#### IV. U.S. Patent List:

1. Ke-Horng Chen, Li-Ren Huang, Hong-Wei Huang, Sy-Yen Kuo, "power supply apparatus",  
U.S. Patent number:7408333.

2. Li-Ren Huang, Chung-Wei Lin, Chin-Ching Yeh, "Backlight device and method for controlling light source brightness thereof", U.S. Patent number:7348960.

3. Ke-Horng Chen, Li-Ren Huang, Hong-Wei Huang, Sy-Yen Kuo, "DC-DC converter and error amplifier thereof", U.S. Patent number: 7253593.

說明：

○○○博士畢業於國立臺灣大學電機工程學系，現任職於XXX 半導體功能安全技術經理。其專長之一 brightness control for backlight system (or backlight display device)與論文內容息息相關。

希望可以藉由畢業論文口試的機會，與不同專長背景及相關經驗之專家學者有交流以及請教的機會。相信不論是對於口試學生本身以及實驗室未來的發展規劃，都有其正面的幫助跟影響。懇請同意邀請○○○博士擔任其口試委員。

同意 不同意 聘任 ○○○博士 為本專班碩士學位

考試委員

專班主任簽章：

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