

國立清華大學第 5 屆傑出產學研究獎得獎人簡介



張孟凡以「元件、電路互動」為方法，研究下世代記憶體、低功耗記憶體與非揮發性邏輯與運算電路，近 5 年發表 31 篇跨元件、電路與 EDA 領域頂尖會議論文(10 篇 ISSCC、7 篇 IEDM、5 篇 DAC、9 篇 VLSIC)、29 篇 IEEE 期刊論文、並獲得 25 個美國專利。申請人為全世界近 5 年於 ISSCC (top-1 晶片領域頂尖會議)之記憶體領域發表最多篇論文之學校團隊、已建立世界級記憶體研究團隊。

張教授近 5 年共主持跨校共 21 件產學合作研究計畫，經費超過 2,322 萬元，業界因產學計畫之額外補助資源(先進與特殊記憶體製程之晶片製造)保守估計等值超過 5 年 9000 萬元。多項技術已發揮產業效益。

張教授研究成果獲國際肯定，目前擔任 IEDM (2017 記憶體程序委員會主席)、ISSCC 等頂尖會議之程序委員，並為 IEEE T-VLSI 及 IEEE T-CAD 期刊之副編輯，亦擔任 IEEE Nanotechnology council 之管理委員(AdCom), IEEE CASS 的 Nanotechnology and Giga Systems 委員會副主席(Chair Elected),及 IEEE CASS Distinguish Lecture。近 5 年並獲邀於 30 多場國際會議給 keynote, tutorial, panelist, forum 與 invited talks 等。

張教授熱心服務，擔任科技部微電子學門召集人(2018-2020)、科技部半導體射月計畫主軸負責人 (2018-2022)，智慧電子國家型科技計畫(2011-2016)與智慧電子橋接計畫(2016-2017)之副執行長，IEEE Taipei Section 第 21 屆(2017-2018)與 20 屆(2015-2016)理事、IEEE SSCS Taipei Chapter 主席等。亦曾獲得中國電機工程學會傑出電機工程教授獎,中央研究院年輕學者研究著作獎、吳大猷先生紀念獎、旺宏金矽獎(6 次大獎)、國家新創獎(2 次)等之肯定。

Dr. Chang is a full Professor in the Dept. of Electrical Engineering of National Tsing Hua University (NTHU), Taiwan. Dr. Chang obtained considerable practical experience before joining NTHU in 2006, having spent more than 10 years working in industry. Between 1997 and 2006, Dr. Chang worked in the development of SRAM/ROM/Flash macros/compiler at Mentor Graphics (New Jersey, US), TSMC (Taiwan), and the Intellectual Property Library Company (Taiwan). His research interests include circuit design for volatile and nonvolatile memory, 3D-Memory, nonvolatile and spintronics logics, circuit-device-interactions in non-CMOS devices, memristor circuits, computing-in-memory and neuromorphic circuits for deep learning and artificial intelligent (AI) chips.

Since 2010, Dr. Chang has authored or co-authored more than 40+ top conference papers (including 14 ISSCC, 15 VLSI Symposia, 8 IEDM, and 5 DAC) as well as 40+ IEEE journal papers and 40+ US patents. He is an associate editor for IEEE TVLSI, and IEEE TCAD. He has been serving on technical program committees for ISSCC, IEDM (Executive committee, Chair of MT sub-committee), DAC, A-SSCC, IEEE CAS Society (Chair Elect of NG-TC), and numerous international conferences. He is a Distinguished Lecturer (DL) for IEEE Circuits and Systems Society (CASS) during 2017-2018. He is the recipient of several prestigious national-level awards in Taiwan, including the Outstanding Research Award of MOST-Taiwan, Outstanding Electrical Engineering Professor Award, Ta-You Wu Memorial Award, Academia Sinica Junior Research Investigators Award, Outstanding Chip Design Awards, and Golden Silicon Awards. He currently is the Program Director of the Microelectronics Program at the Ministry of Science and Technology (MOST) in Taiwan.