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Chen-Fu Chien Tsinghua Chair Professor & Micron Chair Professor

國立清華大學工業工程與工程管理學系

科技部 人工智慧製造系統研究中心 主任

科技部 工業工程與管理學門 召集人

「IC 產業同盟」暨清華-台積電卓越製造中心 主持人

學歷與訓練

威斯康辛大學麥迪遜分校 決策科學與作業研究博士

國立清華大學 工業工程系暨電機工程系雙學位（斐陶斐榮譽會員）

台積電工業工程處副處長（「教授後研究」；台積電第一位借調的國內學者）

加州大學柏克萊分校傅爾布萊特學者（Fulbright Scholar）

哈佛大學商學院 PCMPCL 結業

經歷與榮譽

曾任國立清華大學主任秘書、國立清華大學副研發長兼首任產學合作執行長、國科會固本精進計畫推動辦公室總主持人、「竹科 2.0」規劃計畫主持人、中華卓越經營決策學會理事長、劍橋大學訪問教授、日本早稻田大學青年訪問學者獎等。發表超過 170 篇學術論文，著有《工業 3.5：台灣企業邁向智慧製造與數位決策的戰略》、《半導體製造技術與管理》、《決策分析與管理》及《資料挖礦與大數據分析》等書；主編《創業清華》、《固本科園 台灣精進》、《產業工程與管理個案》及《清華百人會》等書及《竹科 30》有聲書。並撰寫台積電、聯發科、創意電子等哈佛管理個案。已取得 23 項智慧製造發明專利（10 項美國；13 項中華民國）；並與台積電、旺宏電子、聯發科、創意電子、友達光電、台達電、日月光、采鈺科技、美光科技、旺矽、宏遠興業、漢翔、中鋼、廣達電腦等公司建立雙贏的產學合作機制，導入產業創造具體效益，累積產業委託研究經費超過壹億伍仟萬元，累積清華大學技轉金收入超過壹仟參佰萬元。

曾榮獲行政院傑出科技貢獻獎(2016)、行政院國家品質獎-研究類個人獎(2012)、科技部傑出研究獎(2016、2011、2007)、國科會優秀年輕學者研究計畫(2011-2014)、第一級計畫主持人獎(2005-2008)、經濟部大學產業經濟貢獻獎：個人獎(2009)和團隊獎(2010)、教育部產學合作研究獎(2003)、IEEE Trans. on Semiconductor Manufacturing 2015 年最佳論文獎(2016)、IEEE Trans. on Automation Sciences & Engineering 2011 年最佳論文獎(2012)、第 25 屆東元科技獎 (2018)、中華民國科技管理學會科技管理獎(學研團隊類)(2017)、中國工業工程學會會士(2018)、APIEMS Fellow (2016)、科技管理學會院士(2012)、傑出工程教授(2010)、工業工程獎章：產業貢獻(2010)和學術貢獻(2016)、第一屆東森盃大數據競賽冠軍(2014)、工程論文獎(2003)、呂鳳章獎章(2003)、工業工程論文獎(2003)等殊榮，以及國立清華大學傑出產學合作獎(2016、2007)、產學績優教師(2013)、工學院傑出產學合作獎(2013、2016)、績優技轉教師獎、智財商化績優教師等，也是國科會《學與致用》(2007)的九個典範之一。

研究領域

決策分析、工業 3.5、大數據分析、智慧製造、半導體製造、製造策略



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Department of Industrial Engineering & Engineering Management,
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Director, AIMS Research Center, MOST
Convener, Industrial Engineering & Management Program, MOST

Educational Background

1994 – 1996 Ph.D. of Decision Sciences and Operation Research, University of Wisconsin-Madison, U.S.A

1992 – 1994 Master of Industrial Engineering, University of Wisconsin-Madison, U.S.A

1985 – 1990 B.S. Industrial Engineering and Electrical Engineering, National Tsing Hua University. (Phi Tao Phi Honor)

Other Trainings

2007.7 – 8 Executive Program (PCMPCL V), Harvard Business School, Harvard University, USA

2002 – 2003 Fulbright Scholar, Department of Industrial Engineering & Operations Research, University of California-Berkeley, USA

Experiences

Dr. Chen-Fu Chien is Tsinghua Chair Professor, in the Department of Industrial Engineering & Engineering Management, National Tsing Hua University (NTHU), Taiwan. He is also a Micron Chair Professor sponsored by Micron Technology, USA. Professor Chien is the Convener for Industrial Engineering and Management Program, Ministry of Science & Technology, Taiwan. He is the Director of Artificial Intelligence for Intelligent Manufacturing Systems (AIMS) Research Center that is one of four national AI centers sponsored by MOST, Taiwan. He has been Principal Investigator for the Semiconductor Technologies Empowerment Partners (STEP) Consortium and the Director for the NTHU-TSMC Center for Manufacturing Excellence in NTHU. He received B.S. with double majors in Industrial Engineering and Electrical Engineering with the Phi Tao Phi Honor from NTHU in 1990. He received M.S. and Ph.D. of Decision Sciences and Operations Research at the University of Wisconsin-Madison, in 1994 and 1996, respectively. He was a Fulbright Scholar in the Department of Industrial Engineering and Operations Research, UC Berkeley, from 2002 to 2003. He received the Executive Training of PCMPCL from Harvard Business School in 2007. He was a Visiting Professor in Institute for Manufacturing, Cambridge University

(sponsored by Royal Society, UK), Visiting Professor in Beijing Tsinghua University (sponsored by Chinese Development Foundation), Visiting Professor in Waseda University (sponsored by Japan Interchange Association Young Scholar Fellowship).

His research mainly concerns the development of digital decision technologies, big data analytics, and multi-objective optimization methodologies for better analytical solutions for high-tech companies confronting with multi-objective decision problems involved in strategy, manufacturing, and technology that are characterized by uncertainty with massive data and a need for tradeoff among various objectives and justification for the decisions. Dr. Chien and his Decision Analysis Lab (DALab) Associates have conducted many university-industry collaborative research projects with domain experts. From 2005 to 2008, he had been on-leave to serve as the Deputy Director of Industrial Engineering Division in Taiwan Semiconductor Manufacturing Company (TSMC) that is the world leading wafer foundry. Dr. Chien has 23 invention patents for intelligent manufacturing and published more than 170 journal papers. Dr. Chien has received many awards including the Executive Yuan Award for Outstanding Science & Technology Contribution (2016), the National Quality Award from the Executive Yuan (2012), Distinguished Research Awards (2007, 2011, 2016), Tier-One Principal Investigator (2005-2008), and Best Research Awards from the Ministry of Science & Technology, University Industrial Contribution Award from Ministry of Economic Affairs for Individual Contribution (2009), Distinguished University-Industry Collaborative Research Award from the Ministry of Education (2001), the TECO Award (2018), Distinguished Young Faculty Research Award (2001) and Distinguished University-Industry Collaborative Research Award (2007) by NTHU, Best Paper Award (2001), Distinguished Young Industrial Engineer Award (2001), IE Medal (2010) from Chinese Institute of Industrial Engineers, Best Engineering Paper Award (2002) and Distinguished Engineering Professor (2010) by Chinese Institute of Engineers, TSMC-NTHU Faculty Semiconductor Research Grant (2004), and the Lu, Feng-Chang Award from Chinese Management Association (2007). He received the 2011 IEEE Trans. on Automation Sciences and Engineering Best Paper Award and the 2015 IEEE Trans. on Semiconductor Manufacturing Best Paper Award. Dr. Chien is a fellow of APIEMS, CIIE, and CSMOT. He is Area Editor for *Flexible Services and Manufacturing Journal*. He is on the Advisory Board of *OR Spectrum* and editorial board for *Computers and Industrial Engineering* and a number of journals in Taiwan.

Research Area

Decision Analysis, Industrial 3.5, Big Data Analysis, Smart Manufacturing, Semiconductor Manufacturing, Manufacturing Strategy