國立清華大學第7屆傑出產學研究獎得獎人簡介

鄭桂忠博士於 1996 年於台大電機系獲得學士學位，接著分別在 1998 年及 2001 年於美國加州理工學院(California Institute of Technology)電機系獲得碩士與博士學位。鄭博士於 2001 年至 2006 年間服務於美國加州的 Second Sight Medical Products, Inc. 任職資深電機工程師，負責利用混合信號的積體電路設計來開發人工視網膜刺激系統的 ASIC。鄭教授於 2006 年加入清華大學電機系，成立仿生與生醫工程實驗室(Neuromorphic and Biomedical Engineering Lab, NBME)，目前為教授。**他的研究領域包括仿生學習晶片、微型化電子鼻系統、以及生醫植入式輔具裝置**。鄭教授積極地與清大奈微所、化學系、資工系、電機系的教授、以及醫生合作研究，並在上述領域中發表超過 140 篇的國際期刊與會議論文。鄭教授領導台灣最大的電子鼻團隊，開發出可早期偵測並快速診斷因人工呼吸器所引發肺炎的系統。鄭教授的團隊參與由台灣研究團隊所組成的 Dynamical Biomarkers Group，在一千萬美元獎金的世界性比賽 Qualcomm Tricorder XPRIZE 成為了最終的亞軍。鄭教授的團隊獲得大小獎項，包括旺宏金矽獎(七次)、國家新創獎(五次)、台北生技獎、國家型計畫績優計畫獎及特優計畫獎(三次)等。由於研究受肯定，鄭教授也獲得臺灣積體電路設計學會傑出年輕學者獎(2012)、科技部吳大猷先生紀念獎(2014)、科技部優秀年輕學者研究計畫(2014-2018)、中國電機工程師學會傑出電機工程教授獎(2018)、未來科技突破獎(2019)等殊榮。鄭教授曾擔任 IEEE Taipei CAS Chapter 主席(Chair)，目前是 IEEE Transactions on Biomedical Circuits and Systems (TBioCAS)的副主編(Associate Editor-in-Chief)、IEEE 生醫電路系統技術委員會(BioCAS)的主席(Chair)、以及 IEEE 台北分會(Taipei Section)的副理事長(Vice Chair)。

Dr. Kea-Tiong (Samuel) Tang received the B.S. degree in electrical engineering from National Taiwan University, Taiwan in 1996, and received the M.S. and Ph.D. degrees in electrical engineering from California Institute of Technology, Pasadena, CA, USA, in 1998 and 2001, respectively.

During 2001–-2006, Dr. Tang was a Senior Electrical Engineer with Second Sight Medical Products, Inc., Sylmar, CA, USA. He designed mixed signal ASIC for the Argus® II Retinal Prosthesis System, which became the first FDA approved device for retinal prosthesis. Since 2006, he joined the Electrical Engineering Faculty at National Tsing Hua University, Hsinchu, Taiwan, and is currently a full Professor. His research interests include **bio-inspired learning chip, miniature electronic system, and biomedical implantable prosthetic device**. He has actively collaborated with researchers in Nanoengineering and Microsystems, Chemistry, Computer Science, Electrical Engineering, Life Science, and Medical doctors, and has published more than 140 peer-reviewed journal and conference papers in these research areas. He has led the largest electronic nose team in Taiwan to develop a system that can early detect and rapid diagnose ventilator-associated pneumonia. In 2017, Dr. Tang's team has joined the Dynamical Biomarkers Group to win for 2nd place of the $10 million Qualcomm Tricorder XPRIZE, the global competition to revolutionize digital healthcare. He is a recipient of numerous awards, including Outstanding Young Scholar Award, Wu Ta-You Memorial Award, National Innovation Award, and Outstanding Electrical Engineering Professor Award.

Dr. Tang is a senior member of IEEE. He is member of IEEE SSCS, CASS, EDS, and EMBS. He is also TC member of IEEE Biomedical and Life Science Circuits Systems Technical Committee (BioCAS), currently serving as TC Chair. He is the current Associate Editor-in-Chief of IEEE Transactions on Biomedical Circuits and Systems (TBioCAS), Associate Editor of IEEE Sensors Journal, and Guest Editor of IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS). He is TPC member of ISCAS, BioCAS, and IEDM. He was IEEE CAS Chapter Chair of Taipei Section (2017-2018). He is now Vice Chair of IEEE Taipei Section. He is serving as Board of Governor (BoG) of CAS Society.