鄭教授的研究包括「仿生學習晶片」、「微型化電子鼻系統」、「生醫晶片與系統」，結合訊號處理、晶片設計、系統整合，並應用於智慧醫療、無人載具、AI 邊緣裝置、生醫系統等領域，於近 5 年共發表 63 篇高影響因子的國際期刊論文，51 篇國際研討會論文，申請 21 件國內外專利，建立世界知名的仿生晶片系統研究團隊。

鄭教授不僅在學理上有突破與進步，更致力於技術的產業化，並與產業界有多項合作關係，如高通(Qualcomm)、台積電(TSMC)、益華電腦(Cadence)、敦泰電子、皇基公司、正美企業、工研院等，並推動所研發之技術進行技轉、授權、成立新創公司。由於在研究上與產業化的諸多貢獻，鄭教授於 2025 年當選為 IEEE Fellow。

鄭教授熱心參與國際學術服務，曾擔任 IEEE Taipei Section 的理事長，以及國際學術期刊 IEEE Transactions on Biomedical Circuits and Systems 的主編，目前擔任 IEEE Circuits and Systems Society (CASS)的 Vice President，亦多次為台灣爭取主辦旗艦國際研討會(BioCAS、APCCAS)，借此提升台灣在電路與系統領域的國際能見度。鄭教授也擔任多個頂尖國際研討會的議程委員 (ISSCC、ASSCC、ISCAS、BioCAS 等)的規劃委員。

鄭教授於已過五年內，獲得清華大學產學合作績優教師(2020, 2023)、旺宏金矽獎(2021, 2025)、國家新創獎(2021, 2024)、未來科技突破獎(2021)、清大電資院傑出教學獎(2022, 2025)、111 年度清華-台達傑出人才講座(2024)、清華大學傑出教學獎(2025)，在研究、教學、服務、協助產業發展，均有卓越的貢獻。

Prof. Tang's research spans *bio-inspired learning chips*, *miniaturized electronic nose systems*, and *biomedical chips and systems*. His work integrates signal processing, chip design, and system integration, with applications in smart healthcare, autonomous vehicles, AI edge devices, and biomedical systems. Over the past five years, he has published **63 high-impact international journal articles**, **51 international conference papers**, and filed **21 domestic and international patents**, establishing a world-leading research team in bio-inspired chip systems.

Beyond academic research, Prof. Tang is deeply committed to technology translation and industrial collaboration. He has partnered with leading companies including **Qualcomm**, **TSMC**, **Cadence**, **FocalTech**, **Royal Base Corp.**, **CymMetrik**, and the **Industrial Technology Research Institute (ITRI)**. Through these collaborations, he has advanced technology transfer, licensing, and the establishment of startups. In recognition of his outstanding contributions to both fundamental research and industrial application, he was elected an **IEEE Fellow in 2025**.

Prof. Tang is also highly active in international academic service. He previously served as **Chair of the IEEE Taipei Section** and as **Editor-in-Chief of the IEEE Transactions on Biomedical Circuits and Systems**. He is currently **Vice President of the IEEE Circuits and Systems Society (CASS)**. He has played a central role in bringing flagship IEEE conferences such as **BioCAS** and **APCCAS** to Taiwan, significantly elevating Taiwan's international visibility in the circuits and systems community. In addition, he has served on the program committees of premier conferences including **ISSCC, ASSCC, ISCAS, and BioCAS**.

Within the past five years, Prof. Tang has received numerous prestigious honors, including the **Outstanding Industry–Academia Collaboration Award, National Tsing Hua University (2020, 2023)**; the **Macronix Golden Silicon Award (2021, 2025)**; the **National Innovation Award (2021, 2024)**; the **Future Tech Breakthrough Award (2021)**; the **Distinguished Teaching Award, College of Electrical Engineering and Computer Science, NTHU (2022, 2025)**; the **NTHU-Delta Distinguished Talent Lectureship (2024)**; and the **Distinguished Teaching Award, NTHU (2025)**. These recognitions highlight his outstanding contributions across research, teaching, service, and industry collaboration.