



高秉強教授
Professor KO Ping-Keung

榮譽大學院士
Honorary Fellow of HKUST

A distinguished academic in electrical engineering and an accomplished venture capitalist in the semiconductor industry, Professor KO Ping-Keung has made remarkable contributions to our country's technological landscape. A guiding force for the next generation, he empowers budding entrepreneurs and shapes the forefront of innovation.

From a curious child roaming uninhibitedly against the Lion Rock backdrop associated with Hong Kong's stoic spirit, Prof Ko's future success unfolded as a natural extension of his childlike wonder. This enduring curiosity carried him through his formative years, during which he demonstrated a precocious aptitude for grasping the mechanisms belying a variety of machines. His early fascination with radios and gadgets blossomed into a full-fledged passion for electrical engineering, carving a path which was further solidified by a summer job at Fairchild Semiconductor, where he encountered advanced technologies that fueled his future endeavors.

After obtaining a bachelor's degree in Physics with special honors from the University of Hong Kong in 1974, he pursued further studies at the University of California, Berkeley, which was the leading global hub of scientific innovation then. There, he specialized in metal-oxide-semiconductor field-effect transistor (MOSFET) device modeling under the tutelage of Dr. Richard S. Muller, and completed his master's degree and PhD in Electrical Engineering in 1978 and 1982 respectively.

Prof Ko began his career in 1982 at Bell Labs, leading a team specializing in high-speed MOS technologies for communication circuits. The early 1980s saw his transition to academia at UC Berkeley, where he continued his research on MOSFET device physics. During his tenure from 1984 to 1993, he served as Director of the Berkeley Microfabrication Laboratory, and as Vice Chairman of the Electrical Engineering and Computer Science Department.

His work on the Berkeley Short-Channel IGFET Model (BSIM) significantly advanced microchip technology. Adopted universally as the industry standard in the mid-1990s, the BSIM streamlined the interaction between foundry companies and integrated circuit design houses, enhancing efficiency across the semiconductor industry. His pioneering contributions garnered him the prestigious IEEE Solid-State Circuits Award in 2002.

Having built a distinguished academic reputation, Prof Ko was invited back to Hong Kong by the University's founding president, Professor Chia-Wei WOO, to take on

高秉強教授在電子工程學享負盛譽，也是成功的半導體產業創投家，對我國科技發展貢獻殊深。他熱心扶植後輩，為年輕創業家注入無窮動力，致力構建創新科技的前沿。

高教授童年時於香港獅子山下成長，在無拘無束的環境下培養出對世界的無盡好奇。他深受獅子山精神的薰陶，鍛鍊出堅毅不屈、奮發向上的品格，奠定了日後的輝煌成就。隨著歲月增長，他對鑽研機械結構和原理愈發好奇和熱衷，從研究收音機和小型電器開始，逐步發展成對電子工程的熱愛。有一年暑假，他進入了快捷半導體公司當暑期工，接觸到大量先進科技，鞏固了他在電子工程領域大展宏圖的決心。

1974年，高教授以優異成績獲得香港大學物理學榮譽學士學位，其後負笈美國，在當時科研實力首屈一指的加州大學柏克萊分校深造。在 Richard S. Muller 博士的指導下，他專注研究金屬氧化物半導體場效電晶體（MOSFET）設備模型，並於1978年及1982年分別獲得電機及計算機系碩士和博士學位。

高教授於1982年加入貝爾實驗室開展職業生涯，帶領團隊專門研究高速金屬氧化物半導體(MOS)通訊電路技術。80年代初，他轉投學術界，於加州大學柏克萊分校任教，並繼續鑽研MOSFET設備的物理理論。1984年至1993年期間，他先後擔任該校微電子製造中心主任及電機及計算機系副主任。

他在柏克萊短通道IGFET模型(BSIM)方面的研究突破微晶片科技的發展。BSIM在90年代中期被廣泛採用為業界標準，此模型簡化了晶圓代工與集成電路設計公司之間的合作工序，大大提升半導體行業的運作效率。憑著這項具開創性的研究，高教授在2002年榮獲電氣電子工程師學會(IEEE)固態電路大獎。

1995年，在學術界已成就斐然的高教授，應香港科技大學(科大)創校校長吳家瑋教授之邀，回港

the role of Dean of Engineering at the Hong Kong University of Science and Technology (HKUST) in 1995. As Dean, he revitalized the engineering curriculum and recruited top-tier faculty members, advocating for a pragmatic and innovative approach to higher education. Prof Ko focused on efficient resource allocation for young researchers, spawning the establishment of signature facilities, including HKUST's Automation Technology Center. Under his leadership, the University nurtured numerous semiconductor researchers annually, with Prof Ko spearheading the creation of Hong Kong's first semiconductor fabrication line university-wide — a vital step in grooming students to play a pivotal part in the booming Chinese semiconductor industry.

As a Professor Emeritus in the Department of Electronic and Computer Engineering at HKUST, Prof Ko remains engaged with the University's latest academic advancements and developments. His ongoing involvement in HKUST's entrepreneurship programs demonstrates his unwavering commitment to supporting and inspiring future innovators.

Having overseen HKUST's School of Engineering's meteoric rise to international prominence, Prof Ko was driven by a broader ambition – that of accelerating the development of our country's semiconductor industry. This led to his shift in focus to venture capital. As an active angel investor with stakes in over 20 companies, including DJI, Prof Ko's extensive portfolio also includes founding Silicon Federation International (SFI) and Celestry.

His investment philosophy blends an intuitive recognition of potential with a deep commitment to fostering young innovators. By championing creativity and collective growth, his guidance has dramatically boosted the success rates of numerous emerging tech enterprises he co-founded such as SFI, with a focus in investing in IC fabless design companies in our country, and Googol Technology, which specializes in intelligent manufacturing core technologies in Asia and is a member of HKUST's Entrepreneurship Program that went public in August 2023.

Prof Ko's commitment to developing talent extends to education. As Chairman of the Hong Kong Research Grants Council from January 1994 to July 1999 and a member of the University Grants Committee from April 1993 to March 1998, he played a key role in enhancing the standards and international standing of Hong Kong's universities, harnessing a competitive and innovative academic culture.

To HKUST, Prof Ko brings stewardship, creativity, and inventiveness. The University is today delighted to salute Prof Ko for his enduring efforts to propel forward Chinese semiconductor chip design and integrated systems, academia, and venture capital, enlivening the future generation of trailblazers.

出任科大工學院院長。作為工學院之首，高教授革新了工程學科的課程設計，吸納頂尖教學人才，提倡實用與創新相結合的高等教育模式。他積極為年輕研究人員爭取有效的資源分配，推動建立多所具標誌性的科研設施，包括科大自動化技術中心。在高教授的領導下，科大每年培育出眾多優秀的半導體科研人才，更成功在大學建立了香港首個半導體製程生產線——這是培育學生投入蓬勃發展中的中國半導體產業的重要一步。

卸任院長後，高教授以科大電子及計算機工程學系榮休教授的身份，繼續積極參與大學各項最新的學術發展，並全力支持科大的創業項目，對具備潛力的未來創新發明家給予堅定不移的支持。

在高教授的掌舵下，科大工學院聲名遠播。然而，他心懷更大的抱負，決心加快推動我國半導體行業的全面發展，遂將專注力轉移至創業投資。作為活躍的天使投資者，他投資了逾20家企業，其中包括廣為人知的DJI大疆無人機。此外，他還創立了風投公司Silicon Federation International (SFI)和芯片公司Celestry，涉獵範疇多元廣泛。

高教授的投資哲學結合了卓越的眼光和培育英才的堅定承諾，致力發掘和提拔有潛質的年輕創新發明家，並且珍視創意及團隊發展的力量。在高教授的引領和栽培下，眾多他參與創立的初創科技企業成功掘起。例如，專注於投資中國芯片設計的SFI，以及主力於亞洲區開發智能製造核心技術的固高科技，後者更是科大創業計劃的成員之一，於2023年8月成功上市。

高教授的育才熱忱不僅體現在創業投資上，更延伸至教育領域。他於1994年1月至1999年7月擔任香港研究資助局主席，以及在1993年4月至1998年3月出任大學教育資助委員會成員。憑藉他的遠見卓識，本港的大學水平不斷提升，打造了創新的學術文化，逐步邁向國際競爭舞台。

高教授向科大展現了運籌帷幄、非凡的創意及創新精神。他全力推進中國半導體晶片設計及集成系統的發展，並於學術界建樹良多，更在創投領域深耕細作，造就了新一代的科技先鋒。科大謹此衷心表揚。