

## Meet Our People

 **GO**

### ► Faculty

- By Department / Unit
- By Research Areas
- By Name

### ► Administrative Staff

### ► Student Ambassadors

### ► Dean's Club Members

## Vincent LAU 劉堅能

PhD, *Cambridge University*

Chair Professor of Electronic and Computer Engineering

Co-Director of Huawei-HKUST Innovation Laboratory

Associate Director of Hong Kong Telecom Institute of Information Technology

### Departmental Research Area

Wireless Communications & Networking, Energy

### Individual Research Interest

Adaptive channel coding and modulation, digital baseband ASIC architecture and RTL design for wireless communications, information theory with partial feedback, cross-layer MAC scheduling, multiuser MIMO communications, cellular communications (GPRS, IS95, 3G1X, WCDMA, HSDPA), short range wireless communications (wireless LAN, Bluetooth, UWB), digital hardware (FPGA/PCB/Embedded controller) design and prototyping.

### Biography

Vincent obtained his BEng (Distinction 1st Hons – ranked 2nd) from the department of EEE, University of Hong Kong in 1992. He joined the Hong Kong Telecom (PCCW) after graduation for 3 years as project engineer and later promoted to system engineer, responsible for transmission systems design. He obtained the Sir Edward Youde Memorial Fellowship, Rotoract Scholarship and the Croucher Foundation in 95 and went to the University of Cambridge for PhD in mobile communications. He completed the PhD degree in 2 years and joined the Lucent Technologies – Bell labs as member of technical staff in 1997. In 1999 – 2001, 2003 – 2004, he was with the department of EEE, University of Hong Kong where he left as Associate Professor. During 2001 – 2003, he was on leave from the HKU and joined the ASIC Design Group – Bell Labs – Lucent Technologies in the US working on wideband CDMA base station ASIC Design and Post 3G Technologies. From 2003 to present, he is a technology consultant of ASTRI, leading the "Advanced Technologies Team" of the Wireless Access Group on wireless LAN infrastructure design. He joined the department of ECE, HKUST as Associate Professor in August 2004. He has a total of 7 years industrial experience and 4 years of academic experience.

Vincent has published around 40 papers in IEEE Transactions, 60 papers in IEEE conferences, 15 Bell Labs Technical Memorandum and contributed to 12 US patents on wideband CDMA and wireless LAN systems. He is the principal author of a book on MIMO adaptation technologies [by John Wiley and Sons – John Proakis Telecom Series in 2005] and a book on wireless baseband System-on-Chip (SoC) ASIC design [by Cambridge University Press in 2006] as well as invited author of two book chapters on wideband CDMA technologies. He received two best paper awards (IEE and HKIE) and was the invited session chair / technical programme committee of the IEEE WCNC2000 international conference, IEEE CAS 3G Workshop 2000, SCT2001 International Conference, WOCC 2003, ICC 2003 as well as Globecom 2004. He is currently an Editor of IEEE Transactions on Wireless Communications as well as a senior member of IEEE.

[< Back](#)

[< Edit My Profile](#)



**Tel :** +852 2358 7066

**Fax :** +852 2358 1485

**Email :** [eeknlau](mailto:eeknlau)

**Office :** [Room 2416](#)

**Links :** [Department / Unit](#)  
[Personal Webpage](#)

