

Electronic Engineering students shine on international stage

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Two final year students from the Department of Electronic Engineering of City University of Hong Kong (CityU) have won international kudos by winning an international scholarship and clutching the bronze prize in a keenly fought regional IT competition.

Liu Xiangke was awarded the IEEE MTT-S Undergraduate/Pre-graduate Scholarship for Fall 2009 by the IEEE Microwave Theory and Techniques Society, US, for his "Design of Small Antenna for Mobile Communication" in support of his MS/PhD programme in Electrical Engineering at Stanford University. He is among six students worldwide to receive this scholarship. This is the fourth consecutive year CityU students have received this award.

The antenna developed by Xiangke is more powerful than most base station antennas in use nowadays. The small antenna integrates such features as a compact body, high receptivity and transmission power and wide-band properties that existing base station antennas do not simultaneously accommodate. It is suitable for most frequency bands that are widely used in wireless communications systems. These include TV signal transmission and wireless mobile communications such as CDMA, GSM, PCS, UMTS, BLUETOOTH and wireless LAN. Xiangke's product provides users with a more economical choice as it averts the need to instal various base station antennas for different purposes.

Tung Hin-chuen was winner of the Bronze Prize in the Grand Final and also Runner-Up for the Hong Kong Region in the 2009 Amway Pan-Pearl River Delta

Region Universities IT Project Competition, for his project "Wireless Multimedia Station (WMS)". More than 500 teams from universities in 12 locations in the Pan-PRD region competed in the event co-organised by the Internet Professional Association and Yunnan Federation of Computers.

The WMS combines the functions of a portable media player and digital photo frame into one handheld device integrated with Zigbee wireless technology, so media files can be transferred to other systems over a longer distance without a cable connection. Zigbee also enables data transfer simultaneously from the source device to multiple target devices, thus saving time and cost.

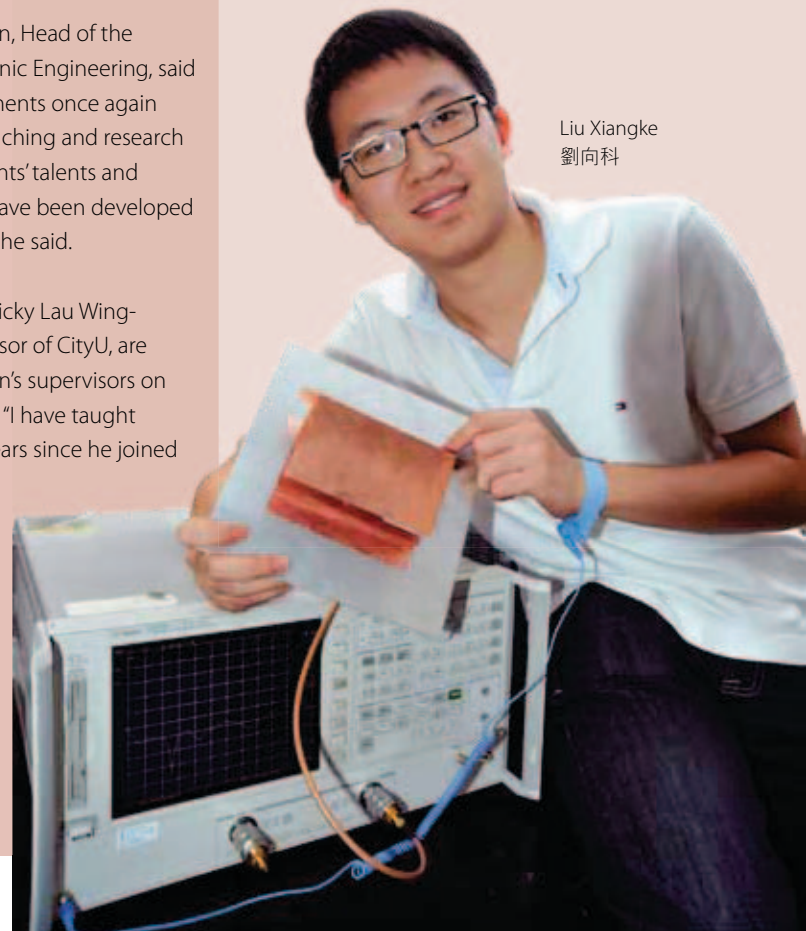
Professor Luk Kwai-man, Head of the Department of Electronic Engineering, said the students' achievements once again exemplified CityU's teaching and research excellence. "The students' talents and innovation potential have been developed to a very great extent," he said.

Professor Luk and Dr Ricky Lau Wing-hong, Associate Professor of CityU, are Xiangke and Hin-chuen's supervisors on their winning projects. "I have taught Hin-chuen for three years since he joined

the department. His profound interest in embedded systems has impressed me greatly and laid a solid foundation for his research capabilities. His success is due to his effort and enthusiasm," said Dr Lau.

Dr Alan Lam Hiu-fung, Chief Technical Officer of Sengital Ltd, where Hin-chuen developed his project in a real industry setting while working for a placement, praised him for his technical knowledge and industrious attitude.

Both students were grateful for their supervisors' invaluable support. Xiangke commended CityU for the uniqueness of its electronic engineering programme, while Hin-chuen attributed his success to the University's state-of-the-art facilities.



Liu Xiangke
劉向科



電子工程專業學生揚威國際

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香港城市大學（城大）電子工程學系兩名三年級學生揚威國際，分別榮獲國際獎學金及於競爭激烈的泛珠三角資訊科技比賽中奪獎。

劉向科憑其「流動通訊小型天線設計」，獲得電機暨電子工程師學會（IEEE）頒發2009年秋季微波理論與技術學會本科生獎學金，以資助其升讀史丹福大學的電機工程科學碩士/哲學博士課程。全球僅六名學生獲得這項獎學金，城大學生已連續四年獲獎。

劉向科設計的天線，比現行大部分基站天線效能更高。他的天線同時集多項特質於一身，包括外型纖巧、接收及傳送能力強、有寬頻功能，現有基站天線則未能全部涵蓋這些特質。他的設計適用於現時無線通訊系統最常用的頻道，包括電視訊號傳送及無線流動通訊所用的CDMA、GSM、PCS、UMTS制式、藍

牙和無線區域網絡。劉向科的天線可為用家提供更經濟實惠的選擇，省卻因不同需要而須安裝各種用途基站天線的煩惱。

童衍銓設計的「無線多媒體組合」，在2009泛珠三角安利杯大學生計算機作品賽中贏得總決賽銅獎及香港區亞軍。該比賽由互聯網專業協會及雲南省計算機學會合辦，共有來自泛珠三角12個地區的多家大學逾500支隊伍參賽。童衍銓的無線多媒體組合集手提媒體播放器及數碼相架功能於一身，並配備Zigbee技術，容許向遠距離的其他系統無線傳送媒體檔案。此外，Zigbee技術亦可將原機儲存的數據同時傳送至多個指定器材，節省時間和成本。

電子工程學系系主任陸貴文教授表示，兩名學生取得的成就再次反映城大的卓越教學和研究表現。「在城大的悉心培育下，

同學的天份與創新潛質得到充分發揮，」他說。

陸教授和系內副教授劉永康博士，曾分別指導劉向科和童衍銓。「童衍銓入學三年來都是我的學生，我非常欣賞他對結合系統的濃厚興趣，這為他的研究能力奠定了良好基礎。他刻苦努力和熱情投入的態度是成功關鍵，」劉博士說。

童衍銓的無線多媒體組合是他在Sengital公司實習時研製的。該公司技術總監林曉峰博士稱讚他技術知識扎實，工作勤奮。

兩名學生均非常感謝導師的寶貴指導。劉向科稱讚城大的電子工程課程十分獨特，童衍銓則認為自己的成功得力於大學的先進設施。

Media coverage 媒體報導：

Website 網頁

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