(Published on 9 February 2009)

Three distinguished CityU academics, namely Professor Gary Feng Gang of the Department of Manufacturing Engineering and Engineering Management, and Professor Man Kim-fung and Professor Keith Zhang Qitu of the Department of Electronic Engineering, were recently named IEEE Fellows in recognition of their contributions to the advancement or application of engineering, science and technology.

The list of 302 IEEE Fellows in the Fellow Class of 2009 includes seven from Hong Kong institutions. The three places granted to CityU professors represents the most for a single institution in the territory and brings the overall tally of IEEE Fellows in the University to 13.

Three professors named as IEEE Fellows

The IEEE, or Institute of Electrical and Electronics Engineers, is the world's leading professional association for the advancement of electronics technology, and comprises elite experts from around the world.

Professor Feng was named IEEE Fellow for his contributions to the theory and application of fuzzy control systems. The original fuzzy control systems, though widely employed in practice, suffer from certain limitations. In the past 15 years, Professor Feng has initiated and made significant contributions to the theory and application of model-based fuzzy control systems by exploiting the advantages of both fuzzy logic and conventional control technology.

In light of his contributions to evolutionary optimisation in industrial electronics, Professor Man has been elected to the grade of IEEE Fellow. He has developed a computational framework that enables industrial engineers to furnish engineering designs that are governed by multiple performance requirements. This surpasses the old method as it lightens the weight of numeric calculations that would have proven prohibitive in some mathematically intangible confinements. "In this way, many obstacles for design engineers can now be removed due to easy access to low-cost but fast computers. The method of Evolutionary Optimisation brings design benefits to areas including antenna designs, radio frequency devices, control systems, signal processing, wireless and computer networking, and many others applications as it allows more data to be processed in a more effective manner," said Professor Man.

Similarly, Professor Zhang's tremendous contribution to improving wireless communication systems has made him the third CityU scholar to be named an IEEE Fellow this year. His recent research on the 4th-generation wireless communication technology supports multimedia services, mobile TV, HDTV and digital video broadcasting. His work has focused on the physical layer, an operational environment for communication networks. His major contributions include solving a long-standing obstacle by devising a simple-design formula for fading Rayleigh channels, and establishing general techniques for evaluating the reliability of wireless transmission.

"I am happy my contribution has been recognised, and will continue to work in this field as it is both my interest and profession," Professor Zhang concluded.

The three professors are grateful to CityU for providing them with the ideal opportunities that encourage both research and teaching.

The IEEE looks to its membership of Fellows for guidance and leadership as the world of electrical and electronic technology continues to evolve. It is a non-profit organisation.

(From left to right)
Professor Gary Feng Gang, Professor Man Kim-fung, Professor Keith Zhang Qitu
(由左至右)
馮剛教授、文劍鋒教授、張啟圖教授

城大三名教授憑超卓成就 獲選為IEEE院士

(於2009年2月9日刊登)

香港城市大學（城大）三名來自科學及工程學院的傑出學者馮剛教授、文劍鋒教授和張啟圖教授，最近同獲推選為電機暨電子工程師學會（IEEE）院士，以表彰他們推進工程及科學技術之發展而為社會謀福祉的貢獻。

IEEE公佈的2009年度獲選為院士者有302人，當中七位來自香港的院校。城大本年度共有三位教授當選，是全港入選者最多的院校，而城大的IEEE院士總數由此增至13位。

IEEE是全球地位最高的電機暨電子工程師專業學會，集結了世界的優秀專家以推進電機與電子科技。

馮教授憑着對模糊控制系統的理論和應用方面的貢獻，獲選為IEEE院士。獲廣泛應用的模糊控制系統仍存在一些限制，馮教授在過去15年來，結合模糊邏輯及傳統控制科技雙方的優點，對以模型為基礎的模糊控制系統的理論和應用，作出重要的貢獻。

文教授獲選為IEEE院士，主要在於他對工業電子學中的演進優化計算法之貢獻。他發明的計算架構優於以往的計算方法，大大減低了傳統數值計算在某些無形計算限制下遇到的極大困難，可協助工業工程師完成符合多重功能要求的工程設計。「因此，設計工程師使用低成本而高效率的電腦，便可解決許多難題。由於演進優化計算法能更有效地處理更多的數據，因此可為不少工程設計領域帶來好處，包括天線設計、無線射頻器材、控制系統、訊號處理、無線聯網及電腦聯網，以及其他多種用途，」文教授說。

張教授因為對改良無線通訊系統作出重大項獻，成為城大第三位在本年度獲選的IEEE院士。他最近研究的第四代無線通訊技術，可支援多媒體服務、流動電視、高清電視及數碼影像廣播。他的研究工作集中於通訊網絡運作環境的物理層。他的主要研究貢獻包括為瑞利衰減通道(fading Rayleigh channels)發明一項設計簡單的公式以解決長期存在的障礙，並為無線傳輸的可靠性訂立通用的評估技術。

「我很高興研究貢獻獲得認同。我會繼續在這方面作研究，因為這是我的專業和興趣，」張教授說。

三位教授感謝城大為他們提供理想的教學研究環境。

IEEE為非牟利組織；該學會期待眾院士會員的指引帶領，以推動電機及電子科技界的持續進步。

Media coverage 媒體報導：

Website 網頁

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