

Hong Yan

Hong Yan received his Ph.D. degree from Yale University in 1989. From 1986 to 1989 he was a research scientist at General Network Corporation, New Haven, CT, USA, where he worked on design and optimization of computer and telecommunications networks. He joined the University of Sydney in 1989 and became Professor of Imaging Science in 1997. He is currently Professor of Computer Engineering at City University of Hong Kong.



Professor Yan's research interests include image processing, pattern recognition and bioinformatics. He has authored or co-authored over 300 journal and conference papers in these areas. His group has proposed a number of techniques for low frequency restoration, high frequency restoration and rotational artifact removal for magnetic resonance image reconstruction. Professor Yan has also developed real-time voice signal analysis and lip-synchronization methods for human face animation. The techniques have already been used in several telecommunications and Internet systems for multimedia message services. He received the Best Mobile Entertainment Software Award from the Office of the Information Technology Officer, the Productivity Council and the Wireless Communications Association in Hong Kong in 2005.

Currently Professor Yan's group is working on the analysis of genomic data and biomolecular interactions. They have developed advanced signal processing and pattern recognition based approaches for DNA microarray data restoration, biclustering analysis and classification, inference of biological networks, gene recognition in DNA sequences, protein-ligand and protein-protein docking, prediction of drug resistance due to protein mutations, and parallel implementation of bioinformatics algorithms on graphics processing units (GPUs) and field programmable gate arrays (FPGAs). These methods have many useful applications to disease diagnosis, drug design and drug therapeutic effect assessment.

Professor Yan was elected a fellow of the International Association of Pattern Recognition (IAPR) for contributions to document image analysis, and a fellow of the Institute of Electrical and Electronic Engineers (IEEE) for contributions to image recognition and applications. He was the Program Chair of the 2001 IEEE International Conference on Fuzzy Systems, and an Organization Committee Co-Chair of the 2006 International Conference on Pattern Recognition. He was the chair of Hong Kong Systems, Man and Cybernetics (SMC) Chapter of IEEE in 2008, and a member of the Board of Governors of IEEE SMC Society during 2009 to 2011. He is currently a member of the Steering Committee of IEEE Transactions on Affective Computing, and a Distinguished Lecturer of the SMC Society.