



THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering

Seminar

**5G and Future Wireless Internet:
Challenges and Emerging Technologies**

by

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U.S.A.

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**Venue : Room 833, Ho Sin Hang Engineering Building
The Chinese University of Hong Kong**

Abstract

Wireless devices are becoming more diverse with not just over 6 billion wireless phones but also possibly a much larger number of sensors, machines contributing to machine to machine communication, and practical everything in the so called Internet of Things (IoT). With an anticipated growth to 100 billion IoT devices by year 2025, more dense radio networks are emerging. Both data and signaling from mobile devices are expected to grow exponentially over the next five or more years. The cellular networks serving cellular phones and mobile devices globally have employed centralized control with different network functions arranged in a hierarchy. On the other hand, the Internet which is originally built for fixed users is making perhaps the biggest changes to serve the wireless users. Meanwhile networks are being transformed with software defined networking as well as network function virtualization and cloudification as the technologies in communication technologies and information technologies are merging. Standards to define 5G technologies are underway.

Biography

H. Anthony Chan received his PhD in physics at University of Maryland, College Park in 1982 and then continued post-doctorate research there in basic science. After joining the former AT&T Bell Labs in 1986, his work moved to industry-oriented research in areas of interconnection, electronic packaging, reliability, and assembly in manufacturing, and then moved again to network management, network architecture and standards for both wireless and wireline networks. He moved to academia as professor at University of Cape Town in 2004, and moved again to industry research as he joined Huawei Technologies in Dallas USA in 2007. His current research in the Wireless Research and Standards organization of Huawei Technologies is in 5G Wireless core network with software defined network and network virtualization.

Anthony is a Fellow of IEEE, a honorary professor at The University of Hong Kong, and an adjunct professor of Hong Kong Polytechnic University. He contributes to IETF and IEEE802.21 standards and had chaired IEEE Standard 802.21c Task Group on Single Radio Handover Optimization. He has authored/co-authored 240 conference and journal papers, a research handbook, several book chapters, and 30 US patents. He is a Distinguished Lecturer/Speaker of IEEE Communication Society and of IEEE Reliability Society. He had delivered 16 keynotes/invited talks and over 40 conference tutorials and short courses. His talks attempt to bring in practical issues from the industry while also offering conceptual clarity to be of broader interest to the audience.

**** ALL ARE WELCOME ****