THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering
Seminar

Towards Ubiquitous Mobile Connectivity

by

Prof. Chenren XU
Peking University, China

Date : **30 June 2023 (Friday)**
Time : **11:00am – 12:00noon**
Venue : **Room 801, Ho Sin Hang Engineering Building, CUHK**

Abstract

Mobility is the essential norm in human society. As today's wireless and mobile networking technology already brings 99% usable connectivity between our personal devices and (edge) cloud services, the remaining fragmented 1% connectivity scenarios, including but not limited to extremely lower power, high mobility, and massive access, which still face domain-specific networking challenges. More importantly, these minority cases are likely to turn over into the majority tomorrow as our global society is consciously evolving in the direction of energy and production efficiency improvement. This talk will introduce our recent efforts towards the vision of "Ubiquitous Mobile Connectivity". Specifically, we will present the design, implementation and deployment experience of our mobile RFID, VILD and multipath networking system for improving scalability, availability and reliability in logistics, Vehicular-to-X and high-speed railway networks.

Biography

Prof. Chenren Xu is a Boya Young Fellow Associate Professor (with early tenure) and Deputy Director of Institute of Networking and Energy-efficient Computing in the School of Computer Science at Peking University (PKU) where he directs Wireless AI for Science (WAIS) Lab. His research interests span wireless, networking and system, with a current focus on backscatter communication for low power IoT connectivity, future mobile Internet for high mobility data networking, and collaborative edge intelligence system for mobile and IoT computing. He earned his Ph.D. from WINLAB, Rutgers University, and worked as postdoctoral fellow in Carnegie Mellon University and visiting scholars in AT&T Shannon Labs and Microsoft Research. He is the Editor of ACM IMWUT and on the Executive Committee of ACM SIGMOBILE and ACM SIGBED. He published papers and has been serving as organization committee and/or TPC in top venues including SIGCOMM, NSDI, MobiCom, MobiSys, SenSys and INFOCOM. He is a recipient of NSFC Excellent Young Scientists Fund (2020), ACM SIGCOMM China Rising Star (2020), Alibaba DAMO Academy Young Fellow (2018), CCF-Intel Young Faculty (2017) awards. His work has been featured in MIT Technology Review.

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