



THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering
Seminar

A Vision towards Pervasive Edge Computing

by

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Time : 11:00am – 12:00noon
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The Chinese University of Hong Kong

Abstract

This talk presents an emerging pervasive edge computing paradigm where heterogeneous edge devices (e.g., smartphones, tablets, IoT and vehicles) can collaborate to sense, process data and create many novel applications at network edge. We propose a data centric design where data become self-sufficient entities that are stored, referenced independently from their producers. This enables us to design efficient and robust data discovery, retrieval and caching mechanisms. The future research agenda including scalable data discovery, cache management, autonomous processing, trust, security and privacy, incentives and semantic data naming) will be discussed.

Biography

Yuanyuan Yang received the BEng and MS degrees in computer science and engineering from Tsinghua University, Beijing, China, and the MSE and PhD degrees in computer science from Johns Hopkins University, Baltimore, Maryland, USA. She is a SUNY Distinguished Professor in the Department of Electrical & Computer Engineering and Department of Computer Science at Stony Brook University, New York, USA. She is currently on leave serving as a Program Director at the US National Science Foundation. She is internationally recognized for her contributions in parallel & distributed computing systems and networking. She was named an IEEE Fellow in 2009 for contributions to the area. Her current research interests include cloud computing, edge computing and mobile computing.

Yuanyuan Yang is currently the Associate Editor-in-Chief for IEEE Transactions on Cloud Computing and an Associate Editor for ACM Computing Surveys. She is an inventor/co-inventor of seven U.S. patents in the area of interconnection networks. She has served as a distinguished visitor of IEEE Computer Society. She received an IEEE Region 1 Award in 2002, the Best Paper Awards at the 18th IEEE International Parallel and Distributed Processing Symposium in 2004, and the 7th International Conference on Parallel and Distributed Systems in 2000, a Distinguished Leadership Award from the 15th IEEE International Conference on Computer Communications and Networks in 2006 and four Best Paper Runner-up Awards.

**** ALL ARE WELCOME ****