



IEEE Systems Council Chapter presents IEEE Distinguished Lecture Series on

Cloud and Fog Computing, an Overview

Dr. Zhensheng Zhang

Date: February 7, 2020 (Friday)

Time: 1:00 – 2:00 PM

Location: VEC 424, CSULB



Abstract:

Recent deployment in the internet to support Internet of Things (IoT) includes cloud computing and fog computing. Cloud computing is the technology of stocking and accessing data, applications and programs over an internet network instead of a local/home storage such as a computer's hard disk and uses networks of shared IT architecture containing large pools of systems and servers. Fog computing, also known as fogging, is a disseminated computing infrastructure in which application and its services are handled either at the network edge or in a remote data center- cloud. Fog computing improves efficiency and trim the amount of data that requires to be transmitted for processing, analysis and storage by placing the data close to the end user.

In this talk, a high level overview of the basic infrastructure and platform for cloud computing is first presented, development status as well as challenges will be reviewed. We then go over Fog Computing, review its architecture and key interfaces, highlight key differences between cloud computing and fog computing, discuss under which condition one is preferred than the other. Standard activities of the fog computing, user cases and future research topics will also be discussed.

About Speaker: Dr. Zhensheng Zhang received his Ph. D. in Electrical Engineering from UCLA. He has over 25 years' experience in design and analysis of network architecture, protocols and control algorithms of the communication networks. He has worked at Cubic Corporation, Boeing, Bell Laboratories, Lucent Technologies, and Columbia University, respectively, focusing on research and development in wireless networks. He has published over 100 technical papers in IEEE Journals and key IEEE conferences (one paper was listed as the top 10 most reading articles from IEEE Communications Society website in 2007). He was IEEE Comsoc distinguished lecturer (2010-2013), the IEEE LATINCOM Keynote Speaker (2013); received the IEEE Regional/Area Outstanding Engineer award in 2011. He is an IEEE Fellow. He has been very active in IEEE Comsoc in the past decade, some of his roles include:

Director, Membership Service (Comsoc BoG) 2016-2017 | IEEE 5G summit San Diego 2019 General co-Chair | Member of Comsoc Education and Service Board 2018-2019 | IEEE ICC 2021, Publicity/Marketing Chair | IEEE San Diego Section Vice chair, Publicity, 2019 | IEEE Region 6 Award Committee Member, 2019 | IEEE Comsoc Distinguished Speaker Program (DSP) talks at DC chapter, Tucson chapter, Chengdu Chapter 2018-2019 | Comsoc Distinguished Lecturers Selection Committee Member (2016-2017) | Globecom 2012 TPC Chair; Globecom 2015 Executive Vice Chair | Board Member, North America Region (NAR), 2008-2015, 2018-2019 | ICC 2015 TPC Vice Chair | Editor, IEEE Transactions on Wireless Communications (2000-2004).

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