



New York Chapter of IEEE Education Committee, New York Chapter of IEEE Systems, Man, Cybernetics (SMC) Society & IEEE Student Branch at LIU-Brooklyn
Present

Distinguished Lecture
“Prioritized Buffer Control in Two-tier 360 Video Streaming”

Prof. Yong Liu, IEEE Fellow

Electrical and Computer Engineering Dept, NYU Tandon School of Engineering
October 6, 2017, Friday, Time: 6:00 to 8:15 PM at Long Island University, One University Plaza
(Seminar Room: **Health Sciences Building, HS121**), Brooklyn, NY 11201

Abstract: Virtual Reality (VR) and Augmented Reality (AR) are expected to be the next-generation Killer-Apps on the Internet. 360 degree video compression and streaming is one of the key components of Virtual Reality (VR) applications. In 360 video streaming, a user may freely navigate through the captured 3D environment by changing her desired viewing direction. Only a small portion of the entire 360 degree video is watched at any time. Streaming the entire 360 degree raw video is therefore unnecessary and bandwidth-consuming. On the other hand, only streaming the video in the user's current view direction will introduce streaming discontinuity whenever the user changes her view direction. In this work, a two-tier 360 video streaming framework with prioritized buffer control is proposed to effectively accommodate the dynamics in both network bandwidth and viewing direction. Through simulations driven by real network bandwidth and viewing direction traces, we demonstrate that the proposed framework can significantly outperform the conventional 360 video streaming solutions.



Distinguished Lecture Speaker: Yong Liu is a fellow of IEEE for his contribution to multimedia networking. His general research interests lie in modeling, design and analysis of networked systems. His current research directions include multimedia networking, network measurement and analytics, software-defined networks, online social networks, and recommender systems. He is the winner of the Best Paper Award at ACM Internet Measurement Conference (IMC) 2012, the National Science Foundation Career Award in 2010, the Best Paper Award of IEEE Conference on Computer Communications (INFOCOM) in 2009, and the IEEE Communication Society Multimedia Communications Best Paper Award in 2008.

Long Island University, Brooklyn Campus, NY (Seminar Room: **Health Sciences Building, HS121**)
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