



Department of
Information Science Technology
Cullen College of Engineering

IST Seminar Series Presents:



Wireless Networking for Personalized and Collaborative Virtual Reality

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Friday, September 22, 2023 10:00AM-11:00AM (Central Time)

Location: MS Teams (see link below)

https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZWEzYWFINjEtNzI2NC00OTNkLWFiMGItYmRhYTBmNzczNTc%40thread.v2/0?context=%7b%22Tid%22%3a%22170bbabd-a2f0-4c90-ad4b-0e8f0f0c4259%22%2c%22Oid%22%3a%22c9f8dd10-bdbf-4c7a-bc65-d4bc72037cbe%22%7d

Abstract: Virtual reality (VR) over wireless networks can provide an interactive and immersive experience for multiple users simultaneously and thus has many applications, especially in VR-based education/training. However, satisfactory personalized user experience in such wireless immersive services demands stringent performance requirements, including: (1) high-speed and high-resolution panoramic image rendering; (2) extremely low delay guarantees; and (3) seamless user experience. Besides the aforementioned requirements, collaborative user experience requires scalability of VR service. Existing VR systems heavily rely on various heuristic designs and do not efficiently exploit VR content commonality and its predictability, which impedes their large-scale deployment. In this talk, we will talk about our network algorithm design for providing both personalized and scalable collaborative VR experiences over wireless networks.

Biosketch: Bin Li is currently an associate professor in the Department of Electrical Engineering at Pennsylvania State University. He received Ph.D. degree in Electrical and Computer Engineering from The Ohio State University (OSU). He was a Postdoctoral Researcher in the Coordinated Science Lab (CSL) at the University of Illinois at Urbana-Champaign (UIUC). His research focuses on the intersection of networking, machine learning, and system development, and their applications in networking for virtual/augmented reality, mobile edge computing, mobile crowdsourcing, and Internet-of-Things (IoT). He received both the National Science Foundation (NSF) CAREER Award and Google Faculty Research Award.