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Fall 2020 Colloquium

Department of Computer and Information Sciences

Millimeter Waves, Millisecond Delays

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Zoom Link: https://temple.zoom.us/j/7348129717

Abstract: Abstract: 5G is unique in its promise of ultra-reliable low latency communications, not just more bandwidth than 4G, to enable a new set of applications like robotics, AR/VR and haptic communications. 6G is expected to continue this trend with its promise of even lower latency. This requirement means that every layer of the protocol stack has to be viewed afresh, leading to exciting new research problems. We will present work on mmWave base station planning using stochastic geometry, ultra-fast handoffs at the link layer, and low latency transport layer protocols.

Bio: Shivendra S. Panwar is a Professor of Electrical and Computer Engineering Department at Tandon School of Engineering of New York University. He received the B.Tech. degree in electrical engineering from the Indian Institute of Technology Kanpur, in 1981, and the M.S. and Ph.D. degrees in electrical and computer engineering from the University of Massachusetts, Amherst, in 1983 and 1986, respectively. He joined the Department of Electrical Engineering at the Polytechnic Institute of New York, Brooklyn (now Tandon School of Engineering of New York University), where he served as department chair. He is currently the Director of the New York State Center for Advanced Technology in Telecommunications (CATT), a member of NYU WIRELESS, and the Faculty Director of the NY City Media Lab. He spent the summer of 1987 as a Visiting Scientist at the IBM T.J. Watson Research Center, and has been a consultant to Bell Laboratories. His research interests include the performance analysis and design of networks. Current work includes wireless networks and multimedia transport over networks. He co-authored TCP/IP Essentials: A Lab based Approach, published by the Cambridge University Press. He was co-awarded the IEEE Communication Society's Leonard G. Abraham Prize in the Field of Communication Systems for 2004. He was a co-author of the IEEE Multimedia Communications Best Paper Award for 2011. He is also a co-winner of a Best Paper Award from IEEE ICC 2016. He is an IEEE Fellow.