Seminar on

Wireless Power Transmission based on Retro-reflective Beamforming

by

Prof Mingyu Lu

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Time : 11:00 am – 12:00 noon
Venue : Room 15-202, 15/F, meeting room of State Key Laboratory of Millimeter Waves, 15/F, Academic 3, City University of Hong Kong

Abstract

This presentation reviews our ongoing research efforts on wireless power transmission based on "retro-reflective beamforming." The primary merit of our scheme is that, wireless power transmission is augmented by radar tracking. Specifically, wireless power transmission is initiated by pilot signals broadcasted from mobile/portable devices; and in response to the pilot signals, the wireless charger delivers directional power beams to the devices. Some of our preliminary studies and findings will be discussed in the presentation.

Biography

Mingyu Lu received the B.S. and M.S. degrees in electrical engineering from Tsinghua University, Beijing, China, in 1995 and 1997 respectively, and the Ph.D. degree in electrical engineering from the University of Illinois at Urbana-Champaign in 2002. From 1997 to 2002, he was a research assistant at the Department of Electrical and Computer Engineering in the University of Illinois at Urbana-Champaign. From 2002 to 2005, he was a postdoctoral research associate at the Electromagnetics Laboratory in the University of Illinois at Urbana-Champaign. He was an assistant professor with the Department of Electrical Engineering, University of Texas at Arlington from 2005 to 2012. He joined the Department of Electrical and Computer Engineering, West Virginia University Institute of Technology in 2012 and he is currently an associate professor. His research interests include wireless power transmission, radar systems, microwave remote sensing, antenna design, and computational electromagnetics. He was the recipient of the first prize award in the student paper competition of the IEEE International Antennas and Propagation Symposium, Boston, MA in 2001. He served as the chair of Antennas and Propagation Society of IEEE Fort Worth Chapter from 2006 to 2011.

***** ALL ARE WELCOME *****

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