

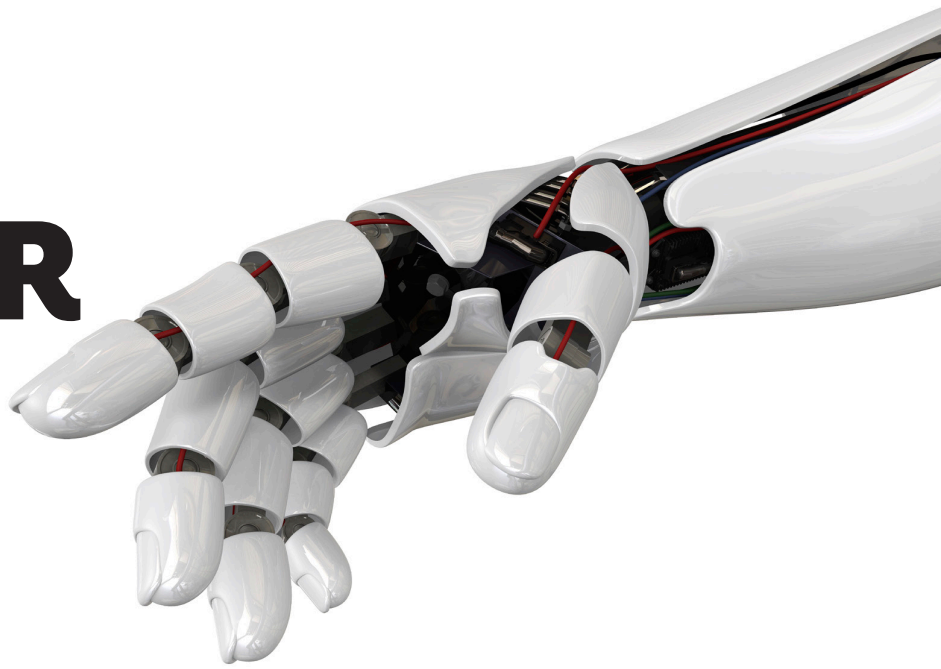
# ECE SEMINAR

Department of Electrical  
and Computer Engineering

May 4, 2017

2:00pm - 3:00pm

Engineering Building 2, W342



## Dr. Jian Song

### Research Progress and Future Plans for the Deeply Integrated PLC-VLC System

*Visible light communication (VLC) using the light emitting diode (LED) will become an appealing alternative to the radio frequency communication technology for indoor wireless broadband broadcasting but needs the support from the backbone network. Power line communication (PLC) systems utilize the ubiquitous power line network to power the LED lamps while can serve as the backbone network for the VLC systems naturally. A novel and cost-effective indoor broadband broadcasting system integrating both VLC and PLC system with much less modification to the current infrastructure and better signal coverage is therefore proposed. This talk will cover the recent research progress on this topic including theoretical work, simulation, and prototyping. The future plan for this work will also be discussed.*

Dr. Jian Song received his B. Eng and PhD degrees from Electronic Engineering Department, Tsinghua University, China in 1990 and 1995, respectively. He is now professor of the Electronic Engineering Department, Tsinghua University. He is also the Director of DTV Technology R&D Center which is one of the major technical contributors for the Chinese digital terrestrial television broadcasting standard. Dr. Song is very active in serving the community, and has served as the Associate Editor of IEEE Transaction on Broadcasting since 2010 and the member of BTS Administration Committee member since 2011. He also has great involvement with ITU, became WP 6A vice chairman in 2012 and Editor-in-Chief of ITU Journal ICT Discoveries in 2017. Dr. Song's current research interest is in the digital broadcasting, network convergence, and the integrated system of visible light and powerline communications. He has published over 230 peer-reviewed journal and conference papers in the aforementioned areas. Dr. Song is the Fellow of IEEE, IET, and CIE.



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