Department of Electrical Engineering

Electronics
Computers
Communications

VINCENT MEYER COLLOQUIUM

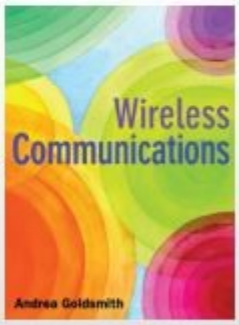
Professor Andrea Goldsmith

Professor Goldsmith is a leading researcher in information theory and communication theory, and has made significant contributions to their application to wireless communications and related fields. Prior to joining Stanford, she held positions at Caltech, Maxim Technologies, Memorylink Corporation, and AT&T Bell Labs. She also founded and served as CTO of PlumeWiFi and Quantenna Communications. Professor Goldsmith is a Fellow of the IEEE and of Stanford, and has received numerous awards, among them the IEEE ComSoc Edwin H. Armstrong Achievement Award, Technical Achievement Awards in Communications Theory and in Wireless Communications, the National Academy of Engineering Gilbreth Lecture Award, and the Silicon Valley/San Jose Business Journal's Women of Influence Award. She is author of the book Wireless Communications and co-author of MIMO Wireless Communications and Principles of Cognitive Radio, as well as an inventor on 28 patents. She is a well known figure in the IEEE Information Theory and Communications Societies, served on the Board of Governors and as a Distinguished Lecturer for both societies, and served as President of the IEEE Information Theory Society in 2009.

The future of wireless and what it will enable

Wednesday, June 22, 2016 ■ 12:30 ■ Meyer Bldg., Auditorium 1003

[Refreshments at 12:30, the lecture will start at 12:45]



Abstract: Wireless technology has enormous potential to change the way we live, work, and play over the next several decades. Future wireless networks will support 100 Gbps communication between people, devices, and the Internet of Things, with high reliability and uniform coverage indoors and out. The shortage of spectrum to support such systems will be alleviated by advances in massive MIMO and mmW technology as well as cognitive radios. Wireless technology will also enable smart and energy-efficient homes and buildings, automated highways and skyways, and in-body networks for monitoring, analysis and treatment of medical conditions. Breakthrough energy-efficiency architectures, algorithms and hardware will allow wireless networks to be powered by tiny batteries, energy-harvesting, or over-the-air power transfer. Finally, new communication systems based on biology and chemistry to encode bits will enable a wide range of new micro and macroscale applications. There are many technical challenges that must be overcome in order to make this vision a reality. The colloquium will describe what the wireless future might look like along with some of the innovations and breakthroughs required to realize this vision.

Professor Goldsmith will also deliver an additional lecture (Information Theory Seminar)

Shannon Theory in Large, Small, and Slow Systems

Thursday, June 23, 2016 ■ 14:30 ■ Meyer Bldg., Room 1061

[Refreshments at 14:15, the lecture will start at 14:30]

For further information see:
http://webee.technion.ac.il/Vincent-Meyer-Colloquium

June 2016

Technion