



PUBLIC NOTICE

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The Wireless Revolution: A Signal Processing Perspective

**(A tutorial on Statistical Signal Processing in Wireless
Multiple-Access Communications)**

The FCC's Office of Engineering and Technology is sponsoring a tutorial by Dr. Vincent Poor, Professor of Electrical Engineering at Princeton University. The presentation will begin at 1:30 p.m. on Tuesday, May 29 in the Commission Meeting Room (TWC-305), 445 12th Street, S.W., Washington, D.C. and will last approximately two hours.

The purpose of the presentation is to increase understanding of statistical signal processing, primarily as applied to problems in wireless multiple-access communications. Research in this area has resulted in the development of novel signal reception techniques for emerging wireless communication systems, such as the wideband code-division multiple-access (W-CDMA) systems currently being developed for voice and data (multimedia) applications. A principal challenge in the development of such systems stems from the physical properties of the communication channel, which can include signal dispersion, fading, impulsive noise, cochannel/multiple-access interference, and narrowband interference, as well as other phenomena such as spatial or path diversity in the form of multipath or multiple antennas at the transmitter or receiver.

Other challenges in this area include the dynamism that can arise in such channels due to mobility and to the use of random channel access protocols, the need for portability and increasing demands for higher data rates and larger user populations. These challenges give rise to the need for new signal-processing algorithms. The results of recent research into these matters can be found at <http://www.ee.princeton.edu/~steph/report97.html>.

Members of the public may attend the presentation, and every effort will be made to accommodate as many people as possible. Admittance, however, will be limited to the seating available in the Commission meeting room. Please allow sufficient time for clearance through Commission security before the presentation begins. For additional information, contact Kent Nilsson at 202-418-0845 (e-mail: knilsson@fcc.gov).