



THE ELECTRICAL & COMPUTER ENGINEERING PROGRAM PRESENTS

A distinguished speaker talk at TAMUQ Sensing and Resource Allocation for Cognitive Radios *Prof. Georgios B. Giannakis, Univ. of Minnesota, USA*

Thursday, April 8
12 – 1 p.m. Light lunch will be served
Lecture Hall 238

Sparsity is an attribute characterizing many natural and man-made signals, not only because nature is inherently parsimonious, but also because practical constraints encourage engineering designs with as few degrees of freedom as possible. For this reason, sparsity has been exploited over the last dozen years in a broad range of statistical inference and signal representation applications, leading to the recent, exciting results on compressive sampling at sub-Nyquist rates. This talk will highlight areas where exploitation of sparsity can be beneficial for wireless communications. Those include estimation of multi-access system parameters (channel taps, timing offsets, and activity factors) as well as multi-user detection. If time allows, we will also discuss how sparsity can enable efficient spectrum sensing for cognitive radio networks.

G. B. Giannakis (Fellow'97) received his Diploma in Electrical Engr. from the Ntl. Tech. Univ. of Athens, Greece, 1981. He is the (co-) recipient of seven paper awards from the IEEE Signal Processing (SP) and Communications Societies including the G. Marconi Prize Paper Award in Wireless Communications.

He also received Technical Achievement Awards from the SP Society (2000), from EURASIP (2005), a Young Faculty Teaching Award, and the G. W. Taylor Award for Distinguished Research from the University of Minnesota. He is a Fellow of EURASIP, has served the IEEE in a number of posts, and also as a Distinguished Lecturer for the IEEE-SP Society.