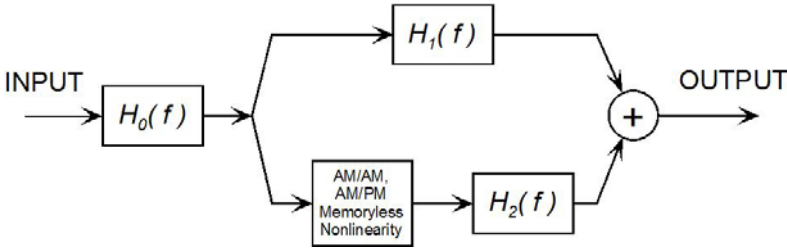
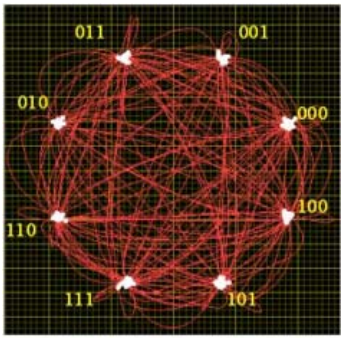
MICROWAVE THEORY AND TECHNIQUES SOCIETY,
LIFE MEMBER AFFINITY GROUP, EDCAS, AND
AEROSPACE ENGINEERING

BUENA VENTURA SECTION

You are invited



Date/ Time: **Wed Nov 28th, 2012**
6:30 PM Pizza & networking
7:00 PM Presentation



Location: **Ciao Wireless**
4000 via Pescador
Camarillo, CA 93012

Speaker: **Dr. Christopher P. Silva**
Sr Engr Com & Netwk
The Aerospace Corporation

Title: **This State-of-the-Art Time-Domain Measurement and Modeling Techniques for Nonlinear Components & Systems**

Abstract:
The increasing demands for performance, mobility, and services in difficult physical channel and frequency allocation environments, in both commercial wireless and military contexts, pose formidable new challenges to communications designers. Current activity in these areas has especially focused on the system-level or behavioral modeling of solid-state power amplifiers, with concomitant efforts on efficiency enhancement and distortion compensation, the latter in the form of predistorters, linearizers, and equalizers. Refined nonlinear measurement and modeling approaches will be required to successfully support these efforts, which will only escalate in difficulty with the use of increasingly complex and broader bandwidth signaling schemes. This presentation introduces and describes highly accurate baseband time-domain measurement and modeling techniques applicable to nonlinear communication components and systems having bandwidths ranging up to several GHz This method provides a powerful set of tools, and numerous benefits for the state-of-the-art nonlinear modeling and distortion compensation of communications systems.

Dr. Silva, Specialist in Communications & Networking, received the B.S., M.S., and Ph.D. degrees, all in electrical engineering, in 1982, 1985, and 1993, respectively, from the Univ. of California at Berkeley. He joined the Electronics Research Laboratory of The Aerospace Corporation in 1989 and is currently a Senior Engineering Specialist in the Communication Electronics Department, Communications & Networking Division. He has been the principal or co-investigator on several internally funded research projects addressing nonlinear microwave CAD, private/secure communications and radar by means of chaos, stability analysis of nonlinear circuits, and the measurement, modeling, and compensation of nonlinear satellite communications channels, the latter of which has become an advanced technology development for several military space programs Dr. Silva is a Fellow of IEEE, a Senior Member of AIAA, and a member of AMS and SIAM.

Directions to Ciao Wireless:

4000 Via Pescador
Camarillo Ca. Phone: 805-389-3224

From LA and South

Take the I-405N.

Take the US-101/VENTURA FWY North

Exit FLYNN RD and go straight.

Turn RIGHT onto VIA PESCADOR. (2nd Road on RIGHT)

From Santa Barbara and North:

Take the US-101S/VENTURA FWY towards LOS ANGELES.

Take the DAWSON DRIVE exit and turn RIGHT from the ramp.

Turn RIGHT at the light onto DAWSON DRIVE.

Turn LEFT at the light onto FLYNN ROAD.
Turn RIGHT onto VIA PESCADOR. (2nd Road on RIGHT)