



## TEXAS A&M UNIVERSITY

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## S E M I N A R

**Room 1003, ETB**

December 4 , 2012 3:55-5:10 P.M.

### **A Spectrally-Controlled Low-EMI Class-D Audio Amplifier**

by

John Khoury

Silicon Laboratories, Inc.

**Abstract:** Class D amplifiers were invented many years ago, but are now receiving new interest due to their high efficiency. These switching amplifiers have one major drawback: they generate significant electromagnetic interference that can impede radio reception. This seminar reviews the operation of Class D amplifiers, the digital generation of PWM signals and will describe new signal processing methods created to control and spectrally shape the EMI. Critical mixed-signal design issues with these types of amplifiers will also be addressed. Experimental results from silicon will be reviewed.

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**John Khoury** is a Distinguished Engineer at Silicon Laboratories developing circuits and systems for Class D amplifiers, FM receivers and TV tuners. Previously, he has held various engineering and management positions at Bell Laboratories and Multilink Technology Corp (purchased by Vitesse). In the mid-1990s, John was an Associate Professor of Electrical Engineering at Columbia. He earned the B.S. and Eng.Sc.D. degrees from Columbia and the S.M. degree from MIT.

