SFSU School of Engineering Seminar

"Carbon Nanotube Electromechanical Devices for RF Applications"

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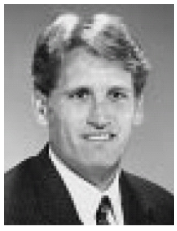

Monday, November 15
1:10 - 2 pm
SCI 256

Synopsis: *In the ongoing effort to produce smaller, more powerful and more cost-effective systems, nanotechnology has been recognized for its tremendous potential. The ability to control materials at the atomic and molecular scale has opened opportunities in a variety of disciplines including engineering, computer science, biology, physics and chemistry. Realizing the potential of nanotechnology requires a fundamental understanding of both the system and the underlying nanoscale material. One promising nanoscale material is the carbon nanotube which is of particular interest to science and technology due to its exceptional electrical and mechanical properties. This presentation will discuss the implementation of a single nanotube self-oscillator as well as a single-nanotube radio receiver, which were enabled by leveraging the unique properties of nanotubes.*

Speaker Bio: Dr. Jeffrey Weldon received a B.S. in Engineering Physics and Ph.D. in Electrical Engineering from the University of California, Berkeley. His dissertation research in the area of RF CMOS integrated circuits has been widely adopted by industry and is frequently cited in journals and conferences. Dr. Weldon received the 2001 ISSCC Lewis Award for best overall paper and was the recipient of the 1998 ISSCC Jack Kilby Best Student Paper Award. His current research focuses on novel nanoscale electronics with an emphasis on the applications of carbon nanotubes. Dr. Weldon has been investigating carbon nanotube resonant structures and carbon nanotube-based sensors. His work on carbon nanotube radios has gained international media attention and has been featured recently in Scientific American.

Refreshments will be served – come join us!

For inquiries, please contact Dr. Kwok Siong Teh at ksteh@sfsu.edu.