



IEEE Systems Council Chapter presents IEEE Distinguished
Lecture Series on

Chaotic Spread Spectrum Suppression of Conducted EMI Based on AC/DC

**Speaker: Dr. Ru Yang, Professor of Guangzhou
University, College of Mechanical and Electrical
Engineering**

Date: *March 22, 2019 (Fri)*

Time: *12:30 – 1:30 PM*

Location: *VEC 424, CSULB*

Abstract: In this talk, CM and DM transfer function of EMI models are used to simulate conducted EMI on flyback converter firstly. The EMI model in this paper considers main parameter of the components to forecast EMI. The experimental results validate that the suggested model can roughly predict conducted EMI. This paper has analyzed the relation between the power spectrum of driving signal and EMI, the relation between the Lyapunov exponent and EMI, the relation between spectrum of chaotic signal and EMI and introduce the variance of the spectrum of chaotic signal. The theoretical analysis is proved by experiment, and the best suppression effect is found in the AC/DC converter.

About Speaker:

Dr. Ru Yang received the Ph.D. degree in Electrical Engineering from South China University of Technology, Electrical Engineering, 2007. Her research interest are in the Suppression of EMI by Dynamic Spectrum and Spectrum Inverse Design of Switching Converter Based on Spread Spectrum Communication Technology. She has published more than 17 papers and has 5 patents, all in Power Electronics areas.

Light refreshment will be served. For more information, please contact: Dr. Sean Kwon at Sean.Kwon@csulb.edu