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IEEE BUENAVENTURA CHAPTER ELECTROMAGNETIC COMPLIANCE / CONSUMER ELECTRONICS

Ground Loops: Beyond the Myths, Misconceptions and Things You Learned in College

By Bill Whitlock

Tues May 5, 2015 at 6:30 pm

CLU – SWENSON 101

Audio has long been trivialized by other engineering disciplines as “easy.” In fact, achieving over 100 dB of dynamic range over a 3-decade frequency range, which includes 60 Hz and its harmonics, is anything but trivial. The true nature of coupling mechanisms in both unbalanced and balanced interfaces is widely misunderstood and the major source of system ground voltage differences has been right under our noses but largely overlooked for some 50 years. The presentation will draw on 40 years of experience in professional audio, the last 25 specializing in interfacing and grounding issues, to dispel the myths and misconceptions. Basic theory will be briefly reviewed and results of recent research reviewed. Several real-world examples of how new strategies based on this research have solved long-standing problems.

Bill Whitlock has held circuit and system design positions at Quad-Eight (recording console maker), Laserium (laser light show producer), Capitol Records, and Jensen Transformers. He holds 5 patents and is a Life Fellow of the Audio Engineering Society and a Life Senior member of IEEE. He has authored several book chapters and numerous magazine articles, contributed to several AES and IEC standards, lectured at many universities (including MIT), and is a popular teacher at AV industry trade shows. He is now a consultant and lives in Oxnard, CA.

Location: California Lutheran University
SWENSON 101
60 West Olson Road, Thousand Oaks
(see map on next page)

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