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Circuit to Circuit Interference

This unique one-day class is for electrical design engineers at all levels challenged by electrical noise problems in products containing RF (wireless), analog, switching power supply and digital electronics. During this hands-on class, each group of two or three students will be provided with a noise "tool box" to build noise source and victim circuits. Each student will apply noise reduction concepts as they master the ability to anticipate and solve electrical noise problems in new product designs.

Section 1: Root Causes of Noise

1. Noise coupling model
2. Four noise coupling mechanisms
3. Classes of noise solutions

Section 2: Predicting and Solving Noise Problems

1. Noise analysis of circuit schematics by estimation
2. Estimate noise problems using only datasheet info
3. Noise measurements on circuits + DEMONSTRATION
4. Identify source and victim circuits using the energy exchange diagram
5. Noise solutions + DEMONSTRATION

Section 3: Hands on Experiments

1. Noise analysis of schematic
2. Identify noise source and victim circuits
3. Identify possible paths
4. Develop and test likely solutions

Section 4: Next Steps

1. Proactive noise prevention in the design process
2. Develop a customized source/victim/coupling-factor list of your company's designs
3. Improving your skills—additional topics

SILENT

Solutions for your noisy world.