

## IEEE-PEAL Chapter Technical Talk



**Presentation:** Sixty Tips in Sixty Minutes: A Walk Through of Circuit Design Pitfalls and Remedies

**Who:** Laura Walter, University of Dayton Research Institute

**Date:** Wednesday, December 11, 2019

**Place:** University of Dayton Research Institute, Curran Place – Rm. S1050 (Auditorium)  
1700 South Patterson Blvd, Dayton, OH 45409 (originally NCR-HQ building, River Campus)

**Parking:** Park in lot to right of main building. Proceed to Auditorium via adjacent rear entrance.

**When:** 5:45 pm Light Buffet and Refreshments (complimentary), 6:15 pm Presentation Begins

**RSVP:** IEEE members may bring one non-IEEE member as a guest. Please reply through the PEAL website (<https://r3.ieee.org/dayton-peal/rsvp/>) ASAP, whether attending as self or self plus guest. Questions should be directed to Bang Tsao (bang.tsao@udri.udayton.edu).

**Abstract:** Designing and working with electronic systems is rarely so strait forward as implementing, in the real world, what exists on a paper schematic. The devil is often in the details that reside beyond design assumptions and known quantities. Be it due to ground loops, transient voltages, leakage currents, stray capacitance, or series inductance, circuits that should “just work” often do not or must be modified to achieve operational objectives. Join us as we discuss tips, tricks, and wisdom surrounding a selection of pitfalls and remedies useful for anyone working with electric or electronic circuits.

**Speaker’s Bio:** Laura Walter is a senior research engineer of the University of Dayton Research Institute for the Air Force Research Laboratory at Wright-Patterson Air Force Base. Though the goal of AFRL is primarily to conduct science research, the bulk of work carried out in support of that goal is that of engineering. It is here, on matters of engineering and consultation upon electronic and mechanical systems that Laura has excelled within AFRL and throughout her career. Her breadth of hands-on experience in design, fabrication, troubleshooting, and maintenance of electronic and mechanical equipment, which began at an early age, has provided her a wealth of knowledge, and an intrinsic understanding of the behavior of physical systems. Throughout her career, her work has regularly focused upon experimentation and data collection system development with a key emphasis on system integration and automation. It is through this work that she has served to make improvements to reproducibility of experimental data, while typically reducing the time by which often complex experiments are carried out. Naturally, as part of this work, she frequently plays a role in the planning and design of experimental setups.