



CASS Outreach Round One: " Foundations of Mixed-Signal IC Design: A Practical Approach to Lab-to-Fab "
[IEEE Columbus Joint Chapter of the Solid-State Circuits and Circuits and Systems Societies](#)

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Foundations of Mixed-Signal IC Design: A Practical Approach to Lab-to-Fab

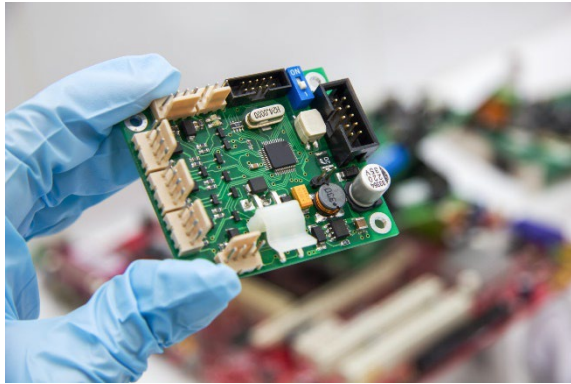
Printed Circuit Board (PCB) Fundamentals One and Two

Thursday September 26th and October 3rd, 2024 from 6:00 – 8:00PM

Abstract

The Columbus, OH Section Joint Chapter (SSC37/CAS04) is excited to announce the newest installment to its 2024 lecture series. Thanks to the generous sponsorship from the CAS society, the chapter is proud to present a new series titled "**Foundations of Mixed-Signal IC Design: A Practical Approach to Lab-to-Fab.**" This series will offer a unique blend of lecture-style talks delivered by subject matter experts in the field of integrated circuit design, along with hands-on technical sessions. In addition to the [Tiny Tapeout](#) workshops, the chapter is proud to host subject matter expert Dr. Shane Smith for a two-part series of workshops on printed circuit board (PCB) design fundamentals.

About the Workshop



This workshop series will introduce participants to the core principles of PCB design, including an overview of materials, construction techniques, and component selection. Participants will learn how to create schematic diagrams, design PCB layouts, perform design rule checks, and generate necessary files for manufacturing. The sessions will also cover creating a Bill of Materials (BOM) and offer an introduction to the fundamentals of PCB assembly.

Throughout the workshop, participants will engage in hands-on practice using an open-source PCB design suite to develop their own PCBs, moving from initial concept to final design. The sessions are designed to be interactive, providing practical experience and feedback from PCB experts. By the end of the workshop, participants will be equipped with the knowledge and skills needed to undertake PCB design projects, along with a completed PCB project to demonstrate their newly acquired abilities.

Dr. Shane Smith (Ph.D., Electrical and Computer Engineering, The Ohio State University) is the President and co-founder of SenseICs. Before founding SenseICs, Shane worked for more than 15 years in the Electroscience Lab and Department of Physics at The Ohio State University, where he designed, produced, and maintained electronic systems used in integrated circuit research, high energy physics experiments (CERN, Stanford linear accelerator, etc.), and other applications. Shane's broad expertise covers a range of electrical engineering activities, and his academic publications, which include more than 80 peer-reviewed conference papers and journal articles, have been cited nearly 20,000 times.



Register Now

Please sign up for workshops one and two at the links below

<https://events.vtools.ieee.org/event/register/432337>

<https://events.vtools.ieee.org/event/register/432340>