

Analog Circuit Design

Analog operation is fundamental to all electronics. Analog electronic circuits process voltages and currents representing signals such as music, video or the position of a robot arm. At its most fundamental level, all electronics is analog in nature.

This textbook is for designers of analog circuitry, whether students, hobbyists or practicing engineers. It focuses on the use of off-the-shelf parts and designs that solve real-world problems.

Analog Circuit Design introduces new material and new ways of considering traditional material. For example,

- A *lever diagram* simplifies the design of op-amp based amplifiers and Schmitt triggers.
- The *Laplace Transform* is presented as an engineering tool with a minimum of mathematics, using the computer algebra program *Maxima*.
- A section on Complete Systems illustrates engineering tradeoffs in real-world design examples.
- The *Zoo* shows circuits that illustrate unusual capabilities of electronic circuits, transforming impedance and other tricks.
- *Equipment cooling* and *electrical interference* are killer problems that afflict many engineering projects. Each of these has its own chapter.

With 1000+ pages and diagrams, 340 references and an extensive index, Analog Circuit Design will be a useful reference for anyone working in this field.

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