



Textbook of Operational Transconductance Amplifier and Analog Integrated Circuits, 1/e

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About the Book

This book covers a detailed study of Operational Transconductance Amplifier (OTA) based circuits, their realizations and applications. The book is primarily concerned with the building blocks and their applications in linear and nonlinear circuit design, presented in a simplified and methodical way. The book comprises nine chapters, covers important building blocks, ideal and non-ideal component simulators, different types of filters and oscillators, using OTA as the active device.

Salient Features

- ▶ Introduction and Application of an OTA for the realization of the basic building blocks.
- ▶ Nonlinear applications of OTAs in comparator, zero crossing detector and schmitt trigger circuits.
- ▶ Realization of ideal grounded as well as floating inductors, resistors, FDNRs and FDNCs.
- ▶ Realization of non-ideal grounded and floating inductors, FDNRs.
- ▶ Realization of component multipliers used in instrumentation system and IC fabrication of large valued resistors and capacitors.
- ▶ OTA-based realizations of the biquadratic functions.
- ▶ Current mode and voltage mode ladder filter.
- ▶ Realization and study of electronically tunable sinusoidal oscillators.

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About the Author

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