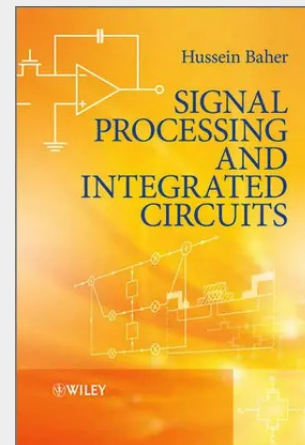


## Signal Processing and Integrated Circuits

This book provides a balanced account of analog, digital and mixed-mode signal processing with applications in telecommunications. Part I Perspective gives an overview of the areas of Systems on a Chip (Soc) and mobile communication which are used to demonstrate the complementary relationship between analog and digital systems. Part II Analog (continuous-time) and Digital Signal Processing contains both fundamental and advanced analysis, and design techniques, of analog and digital systems. This includes analog and digital filter design; fast Fourier transform (FFT) algorithms; stochastic signals; linear estimation and adaptive filters. Part III Analog MOS Integrated Circuits for Signal Processing covers basic MOS transistor operation and fabrication through to the design of complex integrated circuits such as high performance Op Amps, Operational Transconductance Amplifiers (OTA's) and Gm-C circuits. Part IV Switched-capacitor and Mixed-mode Signal Processing outlines the design of switched-capacitor filters, and concludes with sigma-delta data converters as an extensive application of analog and digital signal processing \* Contains the fundamentals and advanced techniques of continuous-time and discrete-time signal processing. \* Presents in detail the design of analog MOS integrated circuits for signal processing, with application to the design of switched-capacitor filters. \* Uses the comprehensive design of integrated sigma-delta data converters to illustrate and unify the techniques of signal processing. \* Includes solved examples, end of chapter problems and MATLAB(r) throughout the book, to help readers understand the mathematical complexities of signal processing. The treatment of the topic is at the senior undergraduate to graduate and professional levels, with sufficient introductory material for the book to be used as a self-contained reference.

This book provides a balanced account of analog, digital and mixed-mode signal processing with applications in telecommunications. Part I Perspective gives an overview of the areas of Systems on a Chip (Soc) and mobile communication which are used to demonstrate the complementary relationship between analog and digital systems. Part II Analog (continuous-time) and Digital Signal Processing contains both fundamental and advanced analysis, and design techniques, of analog and digital systems. This includes analog and digital filter design; fast Fourier transform (FFT) algorithms; stochastic signals; linear estimation and adaptive filters. Part III Analog MOS Integrated Circuits for Signal Processing covers basic MOS transistor operation and fabrication through to the design of complex integrated circuits such as high performance Op Amps, Operational Transconductance Amplifiers (OTA's) and Gm-C circuits. Part IV Switched-capacitor and Mixed-mode Signal Processing outlines the design of switched-capacitor filters, and concludes with sigma-delta data converters as an extensive application of analog and digital signal processing \* Contains the fundamentals and advanced techniques of continuous-time and discrete-time signal processing. \* Presents in detail the design of analog MOS integrated circuits for signal processing, with application to the design of switched-capacitor filters. \* Uses the comprehensive design of integrated sigma-delta data converters to illustrate and unify the techniques of signal processing. \* Includes solved examples, end of chapter problems and MATLAB(r) throughout the book, to help readers understand the mathematical complexities of signal processing. The treatment of the topic is at the senior undergraduate to graduate and professional levels, with sufficient introductory material for the book to be used as a self-contained reference.



**92,50 €**

86,45 € (zzgl. MwSt.)

*Nicht mehr lieferbar*

**Artikelnummer:** 9780470710265

**Medium:** Buch

**ISBN:** 978-0-470-71026-5

**Verlag:** WILEY

**Erscheinungstermin:** 30.04.2012

**Sprache(n):** Englisch

**Auflage:** 1. Auflage 2012

**Produktform:** Gebunden

**Gewicht:** 837 g

**Seiten:** 472

**Format (B x H):** 174 x 253 mm

