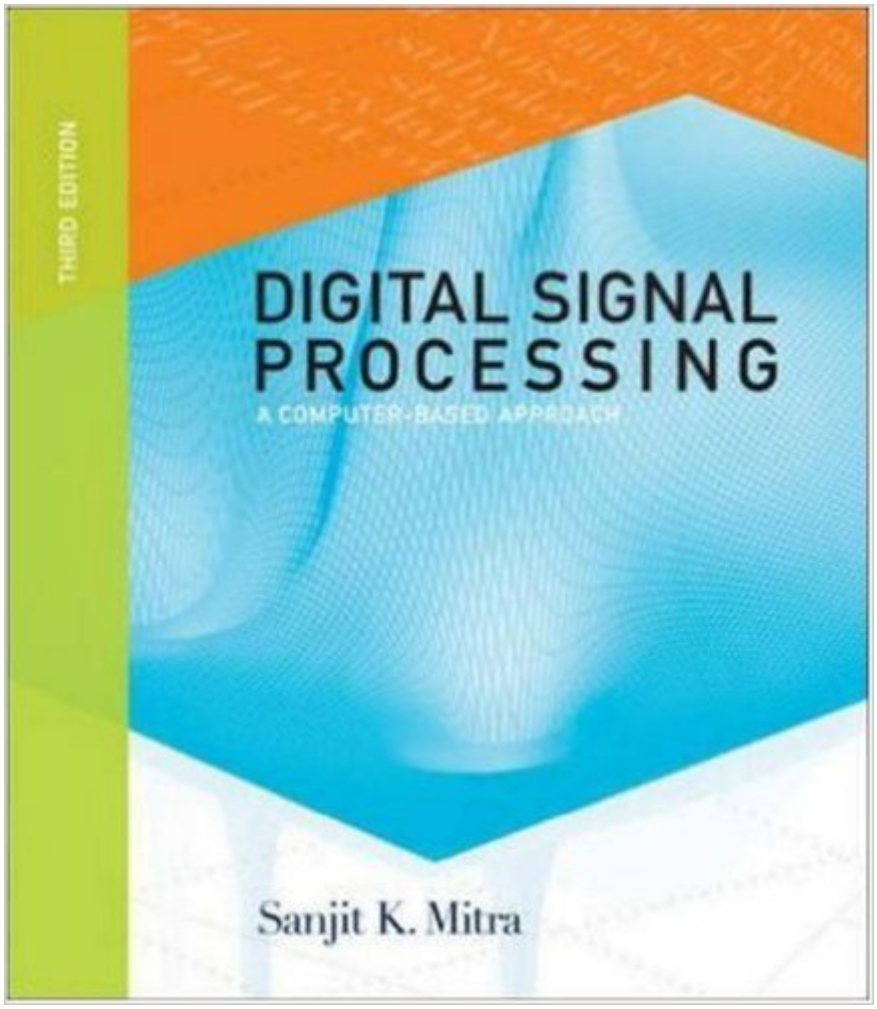
Digital Signal Processing



Synopsis

Digital Signal Processing: A Computer-Based Approach is intended for a two-semester course on digital signal processing for seniors or first-year graduate students. Based on user feedback, a number of new topics have been added to the third edition, while some excess topics from the second edition have been removed. The author has taken great care to organize the chapters more logically by reordering the sections within chapters. More worked-out examples have also been included. The book contains more than 500 problems and 150 MATLAB exercises. New topics in the third edition include: short-time characterization of discrete-time signals, expanded coverage of discrete-time Fourier transform and discrete Fourier transform, prime factor algorithm for DFT computation, sliding DFT, zoom FFT, chirp Fourier transform, expanded coverage of z-transform, group delay equalization of IIR digital filters, design of computationally efficient FIR digital filters, semi-symbolic analysis of digital filter structures, spline interpolation, spectral factorization, discrete wavelet transform.

Book Information

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Average Customer Review: 3.7 out of 5 starsÂ Â See all reviewsÂ (24 customer reviews)

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Customer Reviews

Digital signal processing is a difficult subject, especially for beginners, and this book does nothing to alleviate the situation for the new learner.After reading multiple DSP books, it’s painfully obvious that the explanations in this book are confusing and opaque. Often equations and mathematical proofs are buried within text paragraphs making it extremely difficult for the reader to follow along. The MATLAB experiments are not the panacea one is led to believe. I personally struggled in a DSP

class for 6 weeks until I decided to go against the class requirements and I started over by reading the Oppenheim book. The Oppenheim book is a thorough treatment of the subject and is simply better.The Oppenheim book, still difficult, but better explained and very thoroughDiscrete-Time Signal Processing (3rd Edition) (Prentice Hall Signal Processing)The Schaum's outline was useful as a reference and explained some of the fundamental concepts well, but I would NOT use it as the sole reference.Schaums Outline of Digital Signal Processing, 2nd Edition (Schaum's Outline Series)This book may be a better starter for the beginner due to its simpler explanations. Serious practitioners would probably move to Oppenheim eventually