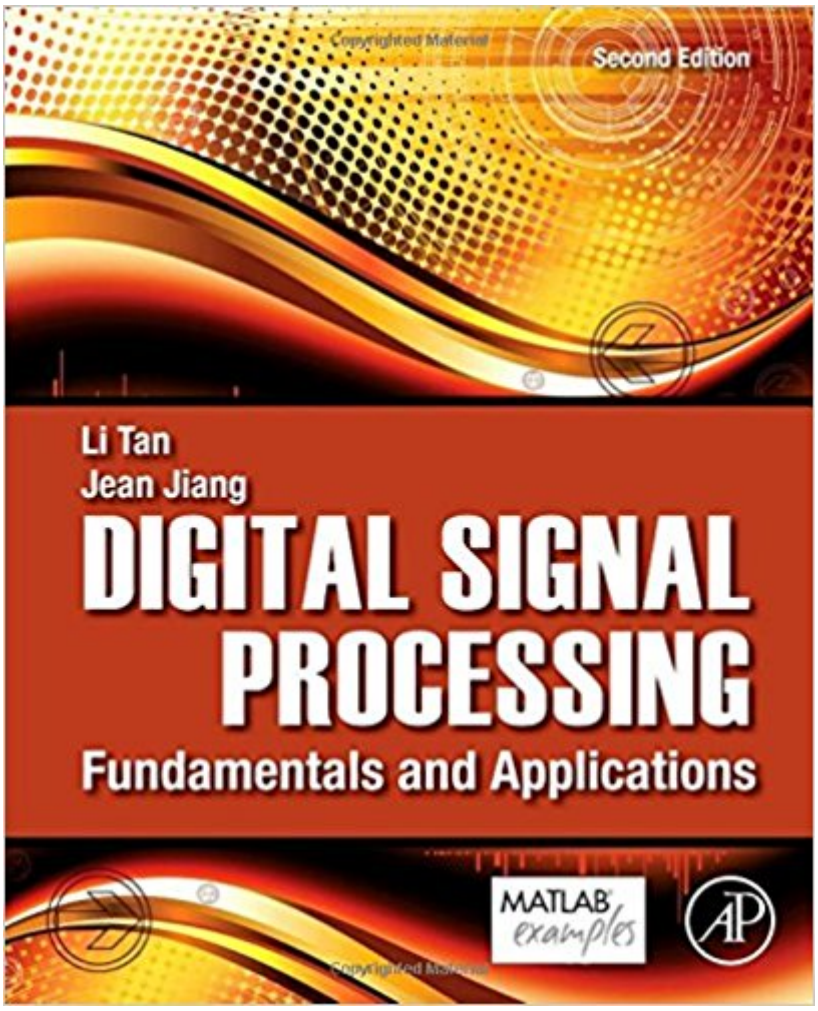
Digital Signal Processing, Second Edition: Fundamentals And Applications



Synopsis

Digital Signal Processing, Second Edition enables electrical engineers and technicians in the fields of biomedical, computer, and electronics engineering to master the essential fundamentals of DSP principles and practice. Many instructive worked examples are used to illustrate the material, and the use of mathematics is minimized for easier grasp of concepts. As such, this title is also useful to undergraduates in electrical engineering, and as a reference for science students and practicing engineers. The book goes beyond DSP theory, to show implementation of algorithms in hardware and software. Additional topics covered include adaptive filtering with noise reduction and echo cancellations, speech compression, signal sampling, digital filter realizations, filter design, multimedia applications, over-sampling, etc. More advanced topics are also covered, such as adaptive filters, speech compression such as PCM, u-law, ADPCM, and multi-rate DSP and over-sampling ADC. New to this edition: MATLAB projects dealing with practical applications added throughout the bookNew chapter (chapter 13) covering sub-band coding and wavelet transforms, methods that have become popular in the DSP fieldNew applications included in many chapters, including applications of DFT to seismic signals, electrocardiography data, and vibration signalsAll real-time C programs revised for the TMS320C6713 DSKCovers DSP principles with emphasis on communications and control applicationsChapter objectives, worked examples, and end-of-chapter exercises aid the reader in grasping key concepts and solving related problemsWebsite with MATLAB programs for simulation and C programs for real-time DSP

Book Information

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Customer Reviews

Li Tan is professor of Electrical Engineering at Purdue University Northwest. He received his Ph.D. degree in Electrical Engineering from the University of New Mexico, Albuquerque, in 1992. Dr. Tan has taught digital signal processing, control systems and communication systems for over 20 years. He has published more than 80 refereed technical articles in journals, conference papers and book chapters in the area of digital signal processing. He has co-authored 4 textbooks, and holds a US patent. Dr. Tan is a senior member of the IEEE.Jean Jiang is an associate professor in the Department of Engineering Technology at Purdue University Northwest. She received her Ph.D. degree in Electrical Engineering from the University of New Mexico, Albuquerque, in 1992. Dr. Jiang has taught digital signal processing, control systems and communication systems for over 20 years. She has published refereed technical articles in journals, conference papers and book chapters in the area of digital signal processing, and co-authored 4 textbooks.

Thanks

Very good for communication engineers.

I bought this book brand new due to the fact that I was taking the author’s DSP class. The book is VERY informative and very easy to read and provides very good examples. The only issue I had with this book is that the binding started to break down after a couple weeks of use. Other than the book binding, I cannot recommend this book highly enough!

This book is a comprehensive one full of usefull and practical technical details and applications. Nice and good work and Thanks!

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Processing (2nd Edition) (Prentice-Hall Signal Processing Series) Digital Signal Processing, Second Edition: Fundamentals and Applications Biomedical Signal Processing and Signal Modeling Cellular Signal Processing: An Introduction to the Molecular Mechanisms of Signal Transduction Digital Signal Processing: Principles, Algorithms and Applications (3rd Edition) Sampling in Digital Signal Processing and Control (Systems & Control: Foundations & Applications) Probability and Random Processes, Second Edition: With Applications to Signal Processing and Communications Understanding Digital Signal Processing (3rd Edition) Digital Signal Processing (4th Edition) Digital Signal Processing: A Practical Approach (2nd Edition) Image Sensors and Signal Processing for Digital Still Cameras (Optical Science and Engineering) VLSI Digital Signal Processing Systems: Design and Implementation Applied Digital Signal Processing: Theory and Practice First Principles of Discrete Systems and Digital Signal Processing (Addison-Wesley Series in Electrical Engineering) Essentials of Digital Signal Processing Digital Signal Processing Using MATLAB & Wavelets Digital Signal Processing with Student CD ROM Fast Algorithms for Digital Signal Processing