



Understanding Digital Signal Processing

By Richard G. Lyons

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- * New homework problems that deepen your understanding and help you apply what you've learned
- * Practical, day-to-day DSP implementations and problem-solving throughout
- * Useful new guidance on generalized digital networks, including discrete differentiators, integrators, and matched filters
- * Clear descriptions of statistical measures of signals, variance reduction by averaging, and real-world signal-to-noise ratio (SNR) computation
- * A significantly expanded chapter on sample rate conversion (multirate systems) and associated filtering techniques
- * New guidance on implementing fast convolution, IIR filter scaling, and more
- * Enhanced coverage of analyzing digital filter behavior and performance for diverse communications and biomedical applications
- * Discrete sequences/systems, periodic sampling, DFT, FFT, finite/infinite impulse response filters, quadrature (I/Q) processing, discrete Hilbert transforms, binary number formats, and much more

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Editorial Review

About the Author

Richard G. Lyons is a consulting Systems Engineer and lecturer with Besser Associates in Mountain View, California. He is author of the book "Understanding Digital Signal Processing", editor and contributor to the book "Streamlining Digital Signal Processing", and has authored numerous articles on DSP. Lyons has taught DSP at the University of California Santa Cruz Extension and recently received the IEEE Signal Processing Society's 2012 Educator of the Year award.

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