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Titolo	Digital signal processing : an introduction // D. Sundararajan
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ISBN	3-030-62368-8
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XIII, 399 p. 155 illus.)
Disciplina	621.3822
Soggetti	Signal processing - Digital techniques
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Discrete-Time Signals -- Discrete-Time Systems -- Discrete Fourier Transform -- Discrete-Time Fourier Transform -- The z-Transform -- Finite Impulse Response Filters -- Infinite Impulse Response Filters -- Multirate Digital Signal Processing -- Fast Computation of the DFT -- Effects of Finite Wordlength.
Sommario/riassunto	This textbook for a one semester introductory course in digital signal processing for senior undergraduate and first year graduate students in electrical and computer engineering departments is concise, highly readable, and yet provides comprehensive coverage of the topic. Each new topic is presented with examples and figures. The highly mathematical content of the topic is presented lucidly to make the learning the subject easier. Practical aspects of the subject are clearly indicated so that the student can apply the principles in real applications. Matlab programs for FIR filter design are provided as supplementary material online. Written to be accessible to students of varying backgrounds, this textbook explains digital signal processing from both a theoretical and practical point of view Presents concepts in a clear, concise and comprehensive manner, so that students can learn easily this highly mathematical topic Provides detailed coverage of various types of filter design, including an introduction to the discrete wavelet transform Includes worked examples throughout every chapter, with an emphasis on real applications Includes numerous exercises at the end of each chapter Provides Matlab programs for FIR filter design,

as supplementary material online.
