1.	Record Nr.	UNINA9910876964703321
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	Titolo	Digital Image Denoising in MATLAB
	Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2024 ©2024
	ISBN	1-119-61777-4 1-119-61775-8
	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (227 pages)
	Collana	IEEE Press Series
	Altri autori (Persone)	TamWing-Shan
	Disciplina	006.6
	Soggetti	Image processing - Digital techniques
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Cover -- Title Page -- Copyright -- Contents -- About the Authors -- Preface -- Acknowledgments -- Nomenclature -- About the Companion Website -- Chapter 1 Digital Image -- 1.1 Color Image -- 1.1.1 Color Filter Array and Demosaicing -- 1.1.2 Perceptual Color Space -- 1.1.3 Grayscale Image -- 1.2 Alternate Domain Image Representation -- 1.3 Digital Imaging in MATLAB -- 1.4 Current Pixel and Neighboring Pixels -- 1.4.1 Boundary Extension -- 1.5 Digital Image Noise -- 1.5.1 Random Noise -- 1.5.2 Gaussian Noise -- 1.5.2.1 Noise Power Estimation -- 1.5.2.2 Noise Power Estimation Base on Derivative -- 1.5.3 Salt and Pepper Noise -- 1.6 Mixed Noise -- 1.7 Performance Evaluation -- 1.8 Image Quality Measure -- 1.8.1 Mean Squares Error -- 1.8.2 Peak SignaltoNoise Ratio -- 1.8.3 Texture and Flat PSNR -- 1.8.4 Texture Area Classification -- 1.9 Structural Similarity -- 1.10 Brightness Normalization -- 1.11 Summary -- Exercises -- Chapter 2 Filtering -- 2.1 Mean Filter -- 2.1.1 Gaussian Smoothing -- 2.2 Wiener Filter -- 2.3 Transform Thresholding -- 2.3.1 Overlapped Block -- 2.4 Median Filter -- 2.4.1 Noise Reduction Performance -- 2.4.2 Adaptive Median Filter -- 2.4.3 Median Filter with Predefined Mask -- 2.4.4 Median of Median -- 2.5 Summary -- Exercises -- Chapter 3 Wavelet -- 3.1 2D Wavelet Transform -- 3.2 Noise Estimation -- 3.3 Wavelet Denoise -- 3.4 Thresholding -- 3.4.1 Threshold Function -- 3.5 Threshold Value -- 3.5.1 Universal

Sommario/riassunto	"Presents a review of image denoising algorithms with practical MATLAB implementation guidance Digital Image Denoising in MATLAB provides a comprehensive treatment of digital image denoising, containing a variety of techniques with applications in high-quality photo enhancement as well as multi-dimensional signal processing problems such array signal processing, radar signal estimation and detection, and more. Offering systematic guidance on image denoising in theories and in practice through MATLAB. This hands-on guide includes practical examples, chapter summaries, analytical and programming problems, computer simulations, and source codes for all algorithms discussed in the book. The book explains denoising algorithms including linear and nonlinear filtering, Wiener filtering, spatially adaptive and multi-channel processing, transform and wavelet domains processing, singular value decomposition, and various low variance optimization and low rank processing techniques. Throughout the text, the authors address the theory, analysis, and implementation of the denoising algorithms to help readers solve their image processing problems and develop their own solutions. Explains how the quality of an image can be quantified in MATLAB Discusses what constitutes a "naturally looking" image in subjective and analytical terms Presents denoising techniques for a wide range of digital image processing applications Describes the use of denoising as a pre-processing tool for various signal processing applications or big data analysis Requires only a fundamental knowledge of digital signal processing Includes access to a companion website with source codes, exercises, and additional resources Digital Image Denoising in MATLAB is an excellent textbook for undergraduate courses in digital image processing, recognition, and statistical signal processing, and a highly useful reference for researchers and engineers working with digital images, digital video, and other applications requiring denoising techniques"--