1.	Record Nr.	UNINA9910784529703321
	Titolo	Handbook of image and video processing [[electronic resource] /] / editor, Al Bovik
	Pubbl/distr/stampa	Amsterdam ; ; Boston, MA, : Elsevier Academic Press, 2005
	ISBN	1-281-11183-X 9786611111830 0-08-053361-2
	Edizione	[2nd ed.]
	Descrizione fisica	1 online resource (1429 p.)
	Collana	Communications, Networking and Multimedia
	Altri autori (Persone)	BovikAlan C <1958-> (Alan Conrad)
	Disciplina	621.36/7
	Soggetti	Image processing - Digital techniques Video compression
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Front Cover; Hand Book of Image and Video Processing; Copyright Page; Preface; Editor; Contributors; Contents; Section I: Introduction; Chapter 1.1 Introduction to Digital Image and Video Processing; Section II: Basic Image Processing Techniques; Chapter 2.1 Basic Gray-Level Image Processing; Chapter 2.2 Basic Binary Image Processing; Chapter 2.3 Basic Tools for Image Fourier Analysis; Chapter 2.4 Image Processing Education; Section III: Image and Video Processing; Image and Video Enhancement and Restoration; Chapter 3.1 Basic Linear Filtering with Application to Image Enhancement Chapter 3.2 Nonlinear Filtering for Image Analysis and EnhancementChapter 3.3 Morphological Filtering for Image Enhancement and Feature Detection; Chapter 3.4 Wavelet Denoising for Image Enhancement; Chapter 3.5 Basic Methods for Image Restoration and Identification; Chapter 3.6 Regularization in Image Restoration and Reconstruction; Chapter 3.7 Multichannel Image Recovery; Chapter 3.8 Multi-Frame Image Restoration; Chapter 3.9 Iterative Image Restoration; Chapter 3.10 Motion Detection and Estimation; Chapter 3.11 Video Enhancement and Restoration; Reconstruction from Multiple Images Chapter 3.12 Local and Global Stereo MethodsChapter 3.13 Image Sequence Stabilization, Mosaicking, and Superresolution; Section IV:

Image and Video Analysis; Image Representations and Image Models; Chapter 4.1 Computational Models of Early Human Vision; Chapter 4.2 Multiscale Image Decompositions and Wavelets; Chapter 4.3 Random Field Models; Chapter 4.4 AM-FM Image Models: Fundamental Techniques and Emerging Trends; Chapter 4.5 Image Noise Models; Chapter 4.6 Color and Multispectral Image Representation and Display; Chapter 4.7 Statistical Modeling of Photographic Images
Image and Video Classifications and SegmentationChapter 4.8 Statistical Methods for Image Segmentation; Chapter 4.9 Multiband Techniques for Texture Classification and Segmentation; Chapter 4.10 Video Segmentation; Chapter 4.11 2D and 3D Motion Tracking in Digital Video; Chapter 4.12 Adaptive and Neural Methods for Image Segmentation; Edge and Boundary Detection in Images; Chapter 4.13 Gradient and Laplacian Edge Detection; Partial Differential Equation-Based Image Processing; Chapter 4.14 Diffusion Partial Differential Equations for Edge Detection; Chapter 4.15 Shape Smoothing and PDEs
Chapter 4.16 PDEs for Morphological Scale Spaces and Eikonal ApplicationsChapter 4.17 Geometric Active Contours for Image Segmentation; Algoritihms of Image Processsing; Chapter 4.18 Software for Image and Video Processing; Section V: Image Compression; Chapter 5.1 Lossless Coding; Chapter 5.2 Block Truncation Coding; Chapter 5.3 Fundamentals of Vector Quantization; Chapter 5.4 Wavelet Image Compression; Chapter 5.5 Lossy Image Compression: JPEG and JPEG2000 Standards; Chapter 5.6 The JPEG Lossless Image Compression Standards; Chapter 5.7 Multispectral Image Coding
Chapter 5.8 Recovery Methods for Postprocessing of Compressed Images

Sommario/riassunto	55% new material in the latest edition of this "must-have? for students and practitioners of image & video processing!This Handbook is intended to serve as the basic reference point on image and video processing, in the field, in the research laboratory, and in the classroom. Each chapter has been written by carefully selected, distinguished experts specializing in that topic and carefully reviewed by the Editor, Al Bovik, ensuring that the greatest depth of understanding be communicated to the reader. Coverage includes introductory, intermediate and advanced topics and as such,