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Nota di contenuto	 Front Cover; Feature Extraction & Image Processing for Computer Vision; Copyright page; Contents; Preface; What is new in the third edition?; Why did we write this book?; The book and its support; In gratitude; Final message; About the authors; 1 Introduction; 1.1 Overview; 1.2 Human and computer vision; 1.3 The human vision system; 1.3.1 The eye; 1.3.2 The neural system; 1.3.3 Processing; 1.4 Computer vision systems; 1.4.1 Cameras; 1.4.2 Computer interfaces; 1.4.3 Processing an image; 1.5 Mathematical systems; 1.5.1 Mathematical tools; 1.5.2 Hello Matlab, hello images!; 1.5.3 Hello Mathcad! 1.6 Associated literature1.6.1 Journals, magazines, and conferences; 1.6.2 Textbooks; 1.6.3 The Web; 1.7 Conclusions; 1.8 References; 2 Images, sampling, and frequency domain processing; 2.1 Overview; 2.2 Image formation; 2.3 The Fourier transform; 2.4 The sampling criterion; 2.5 The discrete Fourier transform; 2.5.1 1D transform; 2.5.2 2D transform; 2.6 Other properties of the Fourier transform; 2.6.1 Shift invariance; 2.6.2 Rotation; 2.6.3 Frequency scaling; 2.6.4 Superposition

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Sommario/riassunto	This book is an essential guide to the implementation of image processing and computer vision techniques, with tutorial introductions and sample code in Matlab. Algorithms are presented and fully explained to enable complete understanding of the methods and techniques demonstrated. As one reviewer noted, ""The main strength of the proposed book is the exemplar code of the algorithms."" Fully updated with the latest developments in feature extraction, including expanded tutorials and new techniques, this new edition contains extensive new material on Haar wavelets, Viola-Jones, bilateral fi