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Autore	Beyerer Jürgen
Titolo	Machine Vision : Automated Visual Inspection: Theory, Practice and Applications / / by Jürgen Beyerer, Fernando Puente León, Christian Frese
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Descrizione fisica	1 online resource (802 p.)
Disciplina	620
Soggetti	Signal processing Image processing Speech processing systems Optical data processing Robotics Automation Physical measurements Measurement Signal, Image and Speech Processing Image Processing and Computer Vision Robotics and Automation Measurement Science and Instrumentation
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 at the end of each chapters and index.
Nota di contenuto	Introduction -- Part I Image Acquisition: Light -- Optical Imaging -- Radiometry -- Color -- Sensors for Image Acquisition -- Methods for Image Acquisition -- Part II Image Processing: Image Signals -- Preprocessing and Image Enhancement -- Image Restoration -- Segmentation -- Morphological Image Processing -- Texture Analysis -- Detection -- Image Pyramids, Wavelet Transform and Multiresolution Analysis -- Mathematical Foundations -- The Fourier Transform.

Sommario/riassunto

The book offers a thorough introduction to machine vision. It is organized in two parts. The first part covers the image acquisition, which is the crucial component of most automated visual inspection systems. All important methods are described in great detail and are presented with a reasoned structure. The second part deals with the modeling and processing of image signals and pays particular regard to methods, which are relevant for automated visual inspection.
