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Nota di contenuto	Cover -- Title Page -- Copyright -- Contents -- Chapter 1 Image Processing -- 1.1 Basic Definitions -- 1.2 Image Formation -- 1.2.1 Optics -- 1.2.2 Colour -- 1.3 Image Processing Operations -- 1.4 Realtime Image Processing -- 1.5 Embedded Image Processing -- 1.6 Computer Architecture -- 1.7 Parallelism -- 1.7.1 Temporal or Task Parallelism -- 1.7.2 Spatial or Data Parallelism -- 1.7.3 Logical Parallelism -- 1.7.4 Stream Processing -- 1.8 Summary -- References -- Chapter 2 Fieldprogrammable Gate Arrays -- 2.1 Hardware Architecture of FPGAs -- 2.1.1 Logic -- 2.1.2 DSP Blocks -- 2.1.3 Memory -- 2.1.4 Embedded CPU -- 2.1.5 Interconnect -- 2.1.6 Input and Output -- 2.1.7 Clocking -- 2.1.8 Configuration
Sommario/riassunto	This book explores the design and implementation of embedded image processing using FPGAs, providing a comprehensive guide for engineers and developers. It covers topics such as image formation, processing techniques, FPGA hardware architecture, and algorithm development. The author, Donald G. Bailey, aims to equip readers with the knowledge to effectively utilize FPGAs for efficient image processing applications. The book is intended for professionals and

students in electronic engineering and computer science, offering detailed insights into parallel processing, hardware description languages, and high-level synthesis tools.
