Record Nr. UNINA9910463156603321 Autore Mukhopadhyaya Jayanta Titolo Digital geometry in image processing / / Jayanta Mukhopadhyay. [et al.] Boca Raton, Fla.:,: Taylor & Francis,, 2013 Pubbl/distr/stampa **ISBN** 0-429-08675-X 1-4665-0568-0 Edizione [1st edition] Descrizione fisica 1 online resource (316 p.) Collana IIT kharagpur research monograph series Disciplina 006.601/516 Image processing - Digital techniques - Mathematics Soggetti Geometry - Data processing Electronic books. 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; Contents; Series Preface; Preface; List of Figures; List of Tables: Symbol Description: Chapter 1 Digital Topology: Fundamentals: Chapter 2 Distance Functions in Digital Geometry: Chapter 3 Digitization of Straight Lines and Planes; Chapter 4 Digital Straightness and Polygonal Approximation; Chapter 5 Parametric Curve Estimation and Reconstruction; Chapter 6 Medial Axis Transform; Chapter 7 Modeling of a Voxelated Surface; References; Color Insert; Back Cover Sommario/riassunto Exploring theories and applications developed during the last 30 years, Digital Geometry in Image Processing presents a mathematical treatment of the properties of digital metric spaces and their relevance in analyzing shapes in two and three dimensions. Unlike similar books, this one connects the two areas of image processing and digital geometry, highlighting important results of digital geometry that are currently used in image analysis and processing. The book discusses different digital geometries in multi-dimensional integral coordinate

spaces. It also describes interesting properties of