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Titolo Content-Based Image Retrieval: Ideas, Influences, and Current Trends /

/ by Vipin Tyagi

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006.37

Soggetti Optical data processing

Data structures (Computer science)

Pattern perception Signal processing Image processing

Speech processing systems Computer science - Mathematics

Applied mathematics Engineering mathematics

Image Processing and Computer Vision Data Structures and Information Theory

Pattern Recognition

Signal, Image and Speech Processing

Mathematical Applications in Computer Science Mathematical and Computational Engineering

Lingua di pubblicazione Inglese

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Livello bibliografico Monografia

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Chapter 1. Introduction to Image Retrieval -- Chapter 2. Image

Features -- Chapter 3. Content-based Multimedia Information Retrieval: State-of-the-art and Challenges -- Chapter 4. Images Matching through Region-based Similarity Technique -- Chapter 5. Visual Features In Image Retrieval Through CBIR -- Chapter 6. Content based Image Retrieval -- Chapter 7. Mathematical Tools for Image Retrieval -- Chapter 8. Text based Image Retrieval -- Chapter 9.
Content based Image Retrieval of Texture Images -- Chapter 10.
Content based Image Retrieval of Natural Images -- Chapter 11.
Color based Image Retrieval -- Chapter 12. Shape based Image
Retrieval -- Chapter 13. Geographical image Based Retrieval -- Chapter 14. Query Processing Issues in Region-based Image Retrieval -- Chapter 15. Research Topics for Next Generation Content based Image
Retrieval -- Bibliography -- Appendix A: Image Databases.

Sommario/riassunto

The book describes several techniques used to bridge the semantic gap and reflects on recent advancements in content-based image retrieval (CBIR). It presents insights into and the theoretical foundation of various essential concepts related to image searches, together with examples of natural and texture image types. The book discusses key challenges and research topics in the context of image retrieval, and provides descriptions of various image databases used in research studies. The area of image retrieval, and especially content-based image retrieval (CBIR), is a very exciting one, both for research and for commercial applications. The book explains the low-level features that can be extracted from an image (such as color, texture, shape) and several techniques used to successfully bridge the semantic gap in image retrieval, making it a valuable resource for students and researchers interested in the area of CBIR alike.