Record Nr. UNINA9910337639203321 Autore Thanki Rohit M **Titolo** Hybrid and Advanced Compression Techniques for Medical Images // by Rohit M. Thanki, Ashish Kothari Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-12575-0 Edizione [1st ed. 2019.] 1 online resource (107 pages) Descrizione fisica 616.0754 Disciplina Soggetti Biomedical engineering Signal processing Image processing Speech processing systems Radiology Optical data processing Medical physics Radiation Biomedical Engineering and Bioengineering Signal, Image and Speech Processing Biomedical Engineering/Biotechnology Imaging / Radiology Image Processing and Computer Vision Medical and Radiation Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1. Data Compression and its Application in Medical Imaging --Nota di contenuto Chapter 2. Classification in Data Compression -- Chapter 3. Mathematical Preliminaries -- Chapter 4. Conventional Compression Techniques for Medical Images -- Chapter 5. CS Theory based Compression Techniques for Medical Images -- Chapter 6. Color Medical Image Compression Techniques. .

This book introduces advanced and hybrid compression techniques

specifically used for medical images. The book discusses conventional

Sommario/riassunto

compression and compressive sensing (CS) theory based approaches that are designed and implemented using various image transforms, such as: Discrete Fourier Transform (DFT), Discrete Cosine Transform (DCT), Discrete Wavelet Transform (DWT), and Singular Value Decomposition (SVD) and greedy based recovery algorithm. The authors show how these techniques provide simulation results of various compression techniques for different types of medical images, such as MRI, CT, US, and x-ray images. Future research directions are provided for medical imaging science. The book will be a welcomed reference for engineers, clinicians, and research students working with medical image compression in the biomedical imaging field. Covers various algorithms for data compression and medical image compression; Provides simulation results of compression algorithms for different types of medical images; Provides study of compressive sensing theory for compression of medical images.