Abstract

Our objective is to design, implement and verify a Multi Region of Interest (ROI) Based Medical Image compression with Edge Feature Preserving based on SPIHT, JPEG-2000 and Canny Edge Detection. As medical/biological imaging facilities move towards complete film-less imaging, compression plays a key role. Although lossy compression techniques yield high compression rates, the medical community has been reluctant to adopt these methods, largely
for legal reasons, and has instead relied on lossless compression techniques that yield low compression rates. The true goal is to maximize compression while maintaining clinical relevance and balancing legal risk. In this paper Algorithm developed has following advantages.

1. High compression ratio, keeping the quality of ROIs. 2. Algorithm explains the Gibbs effect and improves the quality of image reconstruction. 3. Algorithm can be used for remote medical image compression, and transfer.

Reference

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Index Terms

Computer Science Wireless

Key words

Region of Interest

Compression Ratio

Peak Signal to Noise Ratio

Mean Square Error

Canny edge Detection