Abstract

Medical image security can be enhanced using the reversible watermarking technique, it allows us to embed the relevant information with the image, which provides confidentiality, integrity and authentication by embedding RSA encrypted digital signature with the image. This paper discusses the need for reversible watermarking techniques and security related problems
in medical images. Here we are comparing the lossless watermarking techniques for various medical image modalities like MRI (Magnetic resonance imaging), US (Ultrasonic), PET (Positron emission tomography), Endoscopic and angiographic images. For the discussions we can take ROI supporting lossless watermarking systems. This lossless watermarking is responsible for recovering the altered medical image content of the system.

Reference

- Gouenou Coatrieux,Clara le Guillou,J.Cauvin and Ch,Roux: "Reversible watermarking for knowledge digest embedding and reliability control in medical images",IEEE transaction on information technology in biomedicine,vol.13,No.2,March 2009.
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- .Li-QunKuang,Yuan Zhang,Xie Han:"A medical image authentication system based on reversible digital watermarking", in IEEE, 1st international conference on information science and engineering (ICISE 2009), pp 1047-1050.

Index Terms

Computer Science

Security

Key words

Reversible Watermarking

Integrity

Confidentiality

Authentication

Medical Image Compression

Medical Imaging