Security in Telemedicine using DWT-CDCS

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Abstract

Copyright protection of digital media is the very first application that comes to mind for digital watermarking. In the past, duplicating artwork was quite complicated and requires great efforts to create the work looks just like the original. However, in present digital world it is very simple for anyone to duplicate or manipulate digital data. The digital image watermarking allows the watermark to be embedded visibly or invisibly in the original image for identification of the owner. This concept can also be used for other media, such as digital video and audio.

Telemedicine is a well-known application of digital watermarking. In this application security & authentication for medical data is very important. Hiding the data into the medical image provide the security over the public network. Authentication verifies whether the image certainly belongs to the right patient Authentication of medical data used for further diagnosis and reference.

This paper focused on the methods of medical image data hiding for security and authentication. High capacity data hiding is achieved with CDCS (Class Dependent Coding
Scheme). As well as data is effectively hided with discrete wavelet transform.

Embedding watermarks in RONI (region of non interest) protects the ROI (region of interest) of medical image, which is diagnostically important part of medical images. Segmentation plays an important role in medical image processing for separating the ROI from medical image.

References

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17. Pouria Mortazavtian, Mohammad Jahangiri And Emad Fatemizadeh, “A Low-Degradation Steganography Model For Data Hiding In Medical Images”, Proc. 4th IASTED International Conference Visualization, Imaging And Image Processing Sep 2004

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Keywords

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