

Title: A heuristic automatic and robust ROI detection method for medical image watermarking

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Abstract: This paper presents an automatic region of interest (ROI) segmentation method for application of watermarking in medical images. The advantage of using this scheme is that the proposed method is robust against different attacks such as median, Wiener, Gaussian, and sharpening filters. In other words, this technique can produce the same result for the ROI before and after these attacks. The proposed algorithm consists of three main parts; suggesting an automatic ROI detection system, evaluating the robustness of the proposed system against numerous attacks, and finally recommending an enhancement part to increase the strength of the composed system against different attacks. Results obtained from the proposed method demonstrated the promising performance of the method.