Volumes of medical images are rapidly generated and have shown a tremendous change in the medical field and to manage them effectively has become a great challenge. This thesis studies about the embedding techniques and the development of innovative medical image retrieval based on texture features and accuracy. The data hiding is wholly based on histogram shifting based wavelet transforms and CBIR model. The objective of the proposed research work is to embed the patient information’s in a medical image with respect to the region of interest and thereby to construct the accurate values of capacity, PSNR based on the image retrieval of healthcare management systems.

The first algorithm with a lifting scheme is used to hide the data of the patient history in the medical image and to recover the information without any distortion and loss has been extracted successfully. While embedding, the IWT coefficient is utilized and decomposed image watermarks are embedded with corresponding resolutions. However the image quality does not degrade from watermarked image. In the preferred region of interest, the retrieval of the image gives high PSNR (Peak Signal to Noise Ratio) and Mean Square error (MSE). The second technique using histogram shifting reveals the absolute extraction of images using discrete
wavelet transform and discrete cosine transform. These algorithms are validated to hide the data in wavelet coefficients of high frequency subbands and thereby it relies on comparing with the DCT coefficients and the DWT coefficients which permit low distortion between the watermarked image and the original image. This in turn shifts a part of the histogram of high frequency subbands and embeds the data by using the histogram.

The performance is compared and validated with respect to PSNR and capacity. This proves the innovative medical image retrieval estimated by the image texture features and accuracy. These texture features of medical images are extracted using MDCT and multi SVM. Both the theoretical approach and the simulation results reveal interesting observations corroborated by using MDCT coefficients and SVM methodology. The extraction of data about the image in response to the query has been trained and competed successfully for all classes of image in the data set and certain implications were done for perfect image retrieval. Experimental results reveal the interesting interpretation made on a database of 100 trademark medical images, showing that an integrated texture feature representation results in 98% of the images being retrieved using MDCT and multi SVM. This motivates the researchers to extract the work in this field of steganography of image retrieval. Hence in this thesis the effectiveness of the approach is demonstrated through intelligent steganography algorithm for validating the retrieval of different medical images.