Enhancement of X-Rays Images Intensity Using Pixel Values Adjustments Technique

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Abstract : X-Ray images are very popular as a first tool for diagnosis. Automating the process of analysis of such images is important in order to help physician procedures. In this practice, teeth segmentation from the radiographic images and feature extraction are essential steps. The main objective of this study was to study correction preprocessing of x-rays images using local adaptive filters in order to evaluate contrast enhancement pattern in different x-rays images such as grey color and to evaluate the usage of new nonlinear approach for contrast enhancement of soft tissues in x-rays images. The data analyzed by using MatLab program to enhance the contrast within the soft tissues, the gray levels in both enhanced and unenhanced images and noise variance. The main techniques of enhancement used in this study were contrast enhancement filtering and deblurring images using the blind deconvolution algorithm. In this paper, prominent constraints are firstly preservation of image's overall look; secondly, preservation of the diagnostic content in the image and thirdly detection of small low contrast details in diagnostic content of the image.

Keywords : enhancement, x-rays, pixel intensity values, MatLab