Abstract

Image enhancement is a technique that increases the visual contrast in a designated intensity range. Contrast is an act of distinguishing by comparing differences. Morphological transformation and block analysis are used to detect the background of various social and medical images. Opening by reconstruction method of contrast image transformation can be defined by two operators - opening and closing. The first operator makes use of the information from block analysis, while the second transformation utilizes the opening by reconstruction. The later is used to define the multi background notion. The complete image processing is being implemented using JAVA simulation model. Quality of image enhancement is assessed by different techniques. In this paper, High performance Computational techniques involving contrast enhancement and noise filtering on various medical, social images are developed using Weber's law. Image quality assessment is compared by different techniques. The values of all the quality assessment parameters are found to be in the standard expected ranges thereby confirming the enhancement of quality of images.
References

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Index Terms

Computer Science
Image Processing

Keywords

Morphological transformation, morphological reconstruction, contrast enhancement, Weber’s law, Quality assessment.