Abstract

Ultrasound applications are used for diagnostic applications such as visualizing muscles, tendons, internal organs, to determine its size, structures, any lesions or other abnormalities. This paper concentrates the diagnosis of abnormalities in kidney Images based on retrieving past similar images from kidney Image Database. More and more amount of ultrasound digital images are being captured and stored in clinical laboratories. In order to use this information, a
time efficient retrieval technique is required. One major development in this area is content based image retrieval (CBIR). The CBIR techniques use image features for image indexing and retrieval. The main features used for image retrieval are color, texture and shape. This Paper looks into the image retrieval technique based on texture, because of same modality ultrasound kidney images. The Most familiar Texture feature extraction technique is using the Two Dimensional Gray level Co-occurrence Matrix (2D-GLCM). But the problem with this method is Computational overhead. To overcome this difficulty, this paper experiments the texture feature extraction by Computationally efficient Gray level Co-occurrence Vector (GLCV), which is called one dimensional Gray level Co-occurrence Matrix (1D-GLCM). The 1D-GLCM Texture feature representation is the central theme of this proposed work and the Performance the system based on 1D-GLCM is compared with traditional two dimensional GLCM called 2D-GLCM. Experimental results show that this technique achieves higher Recall rates with the lesser time compared with traditional 2D-GLCM.

References

Ultra Sound Kidney Image Retrieval using Time Efficient One Dimensional GLCM Texture Feature


Index Terms

Computer Science

Hpc Applications

Keywords

Ultra Sound Kidney Image  Cbir  Texture  1d-glcm  2d-glcm  Recall