Abstract

The bone fracture is a common problem in human beings occurs due to high pressure is applied on bone or simple accident and also due to osteoporosis and bone cancer. Therefore the accurate diagnosis of bone fracture is important aspects in medical field. In this work X-ray/CT images are used for bone fracture analysis. The aim of this project is to develop an image processing based efficient system for a quick and accurate classification of bone fractures based on the information gained from the x-ray / CT images. Images of the fractured bone are
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obtained from hospital and processing techniques like pre-processing, segmentation, edge detection and feature extraction methods are adopted. The processed images will be further classified into fractured and non-fractured bone and compare the accuracy of different methods. This project is fully employed MATLAB 7.8.0 as the programming tool for loading image, image processing and user interface development. Results obtained demonstrate the performance of the bone fracture detection system with some limitations and good accuracy of 85%.

References

- Bielecki, A., Korkosz, M., Zieliński, B. Hand radiographs preprocessing, image representation in the finger regions and joint space width measurements for image
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Index Terms

Computer Science

Image Processing

Keywords

Bone Fracture  Noise Removal  Segmentation  Classification.