Abstract

This paper presents a research on MRI images using wavelet transformation and modified K – means clustering for tumor segmentation. The first step is to perform image segmentation. It allows distinguishing masses and micro calcifications from background tissue. In this paper wavelet transformation and K- means clustering algorithm have been used for intensity based segmentation. The proposed algorithm is robust against noise. In this case, discrete wavelet transform (DWT) is used to extract high level details from MRI images. The processed image is added to the original image to get the sharpened image. Then modified K-means algorithm is applied to the sharpened image in which the tumor region can be located. The combination of noise-robust nature of applied processes and the modified K-means algorithm, and SVM gives
better results.

References

- Parisa Beham, Gurulakshmi. Morphological image processing approach on detection of tumour and cancer cells (2011) IEEE Trans, Image processing

Index Terms

Computer Science
Image Processing

Keywords
Support Vector Machine (SVM) discrete Wavelet Transform (dwt) modified K Means Algorithm