Abstract

Under the scope of this paper an algorithm has been developed which takes the gradient differential as main criteria for identification of the brain tumor. The algorithm also tries to skip the areas of brain which do not suits the criteria of high intensity and high entropy as these are the main two characteristics of tumor area. Finally, the image is reconstructed using extended maxima transformation and regional maxima are found, and finally we get the most susceptible part of tumor. The results have shown that the algorithm takes only 3.98 seconds on an average to identify the tumor and has good accuracy in terms of identification of tumor.

References

Brain Tumor Detection, Demarcation and Quantification via MRI

- P. Narendran, Mr. V. K. Narendira Kumar, Dr. K. Somasundaram, "3D Brain Tumors and Internal Brain Structures Segmentation in MR Images" I. J. Image, Graphics and Signal Processing, 1, 35-43, February 2012.
- Sudipta Roy, Samir K. Bandyopadhyay, "Detection and Quantification of Brain Tumor from MRI of Brain and its Symmetric Analysis" International Journal of Information and Communication Technology Research, Vol. 2 No. 6, June 2012.


Index Terms

Computer Science

Image Processing

Keywords

Tumor  MRI  boundary  image model  and extended maxima transform.