CHAPTER- 7

CONCLUSION AND FUTURE WORK

Conclusion

Brain tumor detection is very sensitive and difficult task and helps in directing the radiologist for tumor detection. In this work, an effectiveness of two texture analysis method is used for identifying the tissue region of brain tumor. The proposed approach implements a novel procedure which uses a combination of GLRLM and CS-LBP texture feature and ANN classifier for the detection of brain tumor from MRI scan image.

The combination of GLRLM and CS-LBP hybrid features vector performed well in discriminating between normal and affected tumor tissue also for classification of a multilayer perceptron neural network classifier is used and achieved the better classification accuracy about 94%. To verify the quality and robustness of the proposed method experiments are carried out with this procedure on several images. The proposed method extracts only 23 features from the segmented image using GLRLM and CSLBP, using these texture feature the classification of tumor became ease. The complexity reduced due to less number of feature used for the classification.

Future work

It is also possible to form 3D images from two 2D images we can work for registration process which can provide a clear 3D image from the two or more 2D MR slice for classifying the tumor with anatomical structure which provides the complete details of tumor. The Multi MR images in 3D format are pre-processed and registered for the classification of tumor which may also helps in knowing the size, shape and structure of tumor like holding an apple in hand. Classifications of tumor with 3D images make more accurate diagnosis process.

Each of the registration steps should be performed with three-dimensional volumes, even if only a subset of the slices is to be segmented. This is due to the fact that utilizing three-dimensional information allows a more accurate registration than the alignment of individual
images, since the registration of three-dimensional volumes (of known scales) will be more constrained than the registration of two-dimensional images.