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(57) Abstract :
 Medical Image Processing System using Neural-Fuzzy Method Abstract: The acronym Medical Image Processing, or MIP for short, refers to a collection of tools that are used to process medical images. These tools include image acquisition, enhancement, segmentation, and restoration, among other things. The medical image segmentation that is employed in computer-aided diagnosis (CAD) systems, which are used to identify abnormalities in medical pictures, is the most essential part of the MIP. In this chapter, we will provide an overview of the difficulties that need to be solved in medical imaging, as well as discuss the significance of using soft computing techniques. The authors emphasise the significance of fuzzy-based clustering and other methods that are comparable for MIP and the applications that it has. The Fuzzy C-Means Clustering Method (FCM), which is one of the known clustering methods, has been discovered to be the best appropriate method for medical imaging. The FCM provides a solution to the issue of oversegmentation and contributes to the enhancement of diagnostic accuracy. The application of an optimization tool results in a reduction in the amount of time needed to carry out the task. A neuro-fuzzy system as a hybrid technique appears to be an effective way for medical picture analysis, according to the results of a comparison between fuzzy-based methods and conventional methods.

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