

## **“ANALYZE THE MEDICAL IMAGE BY, FUZZY CLUSTERING ALGORITHMS THROUGH EDGE DETECTION METHODS”**

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### **ABSTRACT**

One of the successful applications of image processing techniques is in the area of medical image processing. Introduction to sophisticated imaging devices coupled with advances in algorithms specific to medical image processing both for diagnostics and therapeutic planning is the key to wide popularity of image processing in this field. The clustering methods play an important role in image analysis and computer vision, since there are lots of image processing works based on image clustering. Because of great diversity and complexity of problems in medical image processing we always required new approaches. This project describes the application of soft and hard clustering in medical imaging, so called segmentation of image .Here soft clustering algorithm is used to provide partition of defected field .Even though final interpretation solely depends on medical professionals, The result of image segmentation is a set of regions that collectively cover the entire image, or a set of contours extracted from the image. Even with the help of K-mean clustering we can locate the infected area.

**KEY WORDS : Edge detection methods, Fuzzy Clustering by Matlab programming, Segmentation, Clustering methods.**