

Comparative Analysis of Accuracy Prediction using Fuzzy C-Means and KNN Classifier

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Abstract –Software quality and reliability have become the main concern during the software development. It is very difficult to develop software without any fault. The fault-proneness of a software module is the probability that the module contains faults and a software fault is a defect that causes software failures in an executable project. Early detection of fault prone software components enables verification experts to concentrate their time and resources on the problem areas of the software systems under development. In this paper, performance comparison of a Software Fault Prediction System uses two methods; Fuzzy c-means clustering approach and k-Nearest Neighbors Classifier technique, have been performed with the real time data set named PCL, taken from NASA MDP software projects. The performance is recorded on the basis of accuracy, net reliability, RMSE and MAE values.

Keywords –Accuracy, Fuzzy c-means, k-Nearest Neighbors Classifier, NASA MDP, MAE, Reliability, RMSE and Software Fault Prediction.