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# Software Fault Prediction using Fuzzy Clustering & Genetic Algorithm

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*Abstract* –**Modern systems are primarily based on the software based systems. 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 using Fuzzy c-means clustering approach and a hybrid technique (combination of Fuzzy c-means and Genetic Algorithm) a has been performed with the real time data set named PC1, taken from NASA MDP software projects. The performance is recorded on the basis of accuracy, reliability, RMSE and MAE values.**

*Keywords* – **Accuracy, Fuzzy c-means, NASA MDP, MAE, Reliability, RMSE and Software Fault Prediction.**