



# **PSO Optimized Software Fault Prediction system using Fuzzy C-Means**

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**Abstract** – 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 Particle Swarm Optimization) 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** – Fault-Proneness, Fuzzy C-Means, Particle Swarm Optimization, NASA MDP, etc.