Abstract

Many researchers examined the need for the development of fault-free software and increase the efficiency of presented algorithms. An optimization of existing algorithms and software fault prediction are two important techniques. It is proven that this technique has to be useful in increasing effectiveness of software, software testing, examining progression costs and achieving results. This paper illustrates hyper quad tree based k-means algorithm for software fault prediction. This system overcomes the weaknesses in k-means algorithm using Hyper Quad Tree as compared to Quad Tree. Hyper quad tree works in n-dimensions hence it finds better initial cluster centers than former algorithms. This constraint of k-means algorithm is try to solve by hyper quad tree. Another crisis is that k-means is very susceptible to the noise, which is also removed by hyper quad tree algorithm.
Hyper-Quad-Tree based K-Means Clustering Algorithm for Fault Prediction

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Index Terms

Computer Science

Algorithms
Keywords

Software fault prediction  Quad Tree  Dataset  Hyper-Quad Tree  and K-Means clustering