Abstract

One of the essential parts of the software development process is software testing as it ensures the delivery of a good quality and reliable software. Various techniques and algorithms have been developed to carry out the testing process. This paper deals with utility of the nature based algorithms namely Genetic Algorithm, Ant Colony Optimization algorithm and Artificial Bee Colony algorithm in automatic generation of optimized test suite for a given set of programs. The performance of algorithms is evaluated using various factors such as number of paths covered, number of iterations, number of test cases produced and time taken for generation of test suite. The results of performance analysis concluded that Artificial Bee Colony algorithm is more efficient as compared to other mentioned algorithms and can be employed for optimized test suite generation for various complex programs or software.
Comparison of Search based Techniques for Automated Test Data Generation

References

- Mala, D. J. and Mohan, V. ,2009. ABC Tester - Artificial Bee Colony Based Software Test Suite Optimization Approach. IJSE

Index Terms

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Keywords

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