Abstract

Software testing is an inevitable activity of software development which is crucial to the software quality and consumes approximately 50% of the software development cost. Test case design is the most important activity in testing which determines software quality. The program with the moderate complexity cannot be tested completely but verified only for input situations selected as test data. Innovative methods are emerging to perform testing as a whole and unit testing in particular with minimum effort and time. Unit testing is mostly done by developers under a lot of schedule pressure since the software companies find a compromise among functionality, time to market and quality. Thus there is a need for reducing unit testing time by optimizing and automating the process. Test suite generation is an error-prone, tedious and time consuming part of unit testing. A novel technique is proposed to automatically generate test cases from the input domain using meta heuristic search technique scatter search for branch coverage criteria with respect to cyclomatic complexity measure.

References

- Chilenski1, John Joseph Chilenski and Steven P. Miller, 1994. ‘Applicability of Modified
Meta Heuristic Search Technique for Dynamic Test Case Generation


Index Terms

Computer Science
Software Engineering
Keywords
Software testing  Unit testing  Branch Coverage Criteria and Scatter Search