Abstract

Software testing is one major part of software development life cycle (SDLC) and thus tester need to have good testing algorithms in order to test the software correctly and efficiently. Ant colony optimization technique is a meta-heuristic technique which was first proposed by Dr. Marco Dorigo in his PhD thesis in 1992. He proposed a technique which was completely based on the behaviour of ants while taking their food to their colony. In this paper we put forward an extended approach of ant colony method which can be helpful in providing a better path sequence from shortest to longest path, based on the probability calculated using the extended formula. With the help of results we prove that the proposed formula fulfil the requirements.
Extended ACO Algorithm for Path Prioritization

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Index Terms

Computer Science
Software Engineering

Keywords

Software testing, ant colony optimization algorithm, path sequence
Cyclomatic complexity
probability