Automated Testing Approach for Generation and Optimization of Test Cases using Hybrid Bat Algorithm

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 161

Number 7

Year of Publication: 2017

Authors:
Rajesh Ku. Sahoo, Durga Pr. Mohapatra, Manas Rj. Patra

10.5120/ijca2017913238

Abstract

Software testing is used to identify error or bugs. Manual testing is a time-consuming process to generate errors. Automated testing is also used for generating the test cases or test data in less time. Generation of test cases identifies the test cases with requirements. Automated generation of test cases has predefined test data which bring into the specified condition through the system under test (SUT). In this paper, the role of hybrid (BCBA) search technique is analyzed for generating and optimizing random automated test cases or test data. This paper also discusses the automatic generation and optimization of test cases from a hybrid bat algorithm which is a combination of a bee colony and bat algorithms applied in withdrawal operation of an ATM.

References


**Index Terms**

Computer Science
Software Engineering

**Keywords**

Bee colony algorithm, Bat algorithm, BCBA algorithm, meta-heuristics, test case generation and optimization.