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Descrizione fisica	1 online resource (XIV, 191 p. 88 illus., 28 illus. in color.)
Collana	Programming and Software Engineering ; ; 11664
Disciplina	005.1
Soggetti	Software engineering Programming languages (Electronic computers) Computer programming Artificial intelligence Algorithms Software Engineering Programming Languages, Compilers, Interpreters Programming Techniques Artificial Intelligence Algorithm Analysis and Problem Complexity
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Search-Based Predictive Modelling for Software Engineering: How Far Have We Gone -- A Systematic Comparison of Search Algorithms for Topic Modelling -- A Study on Duplicate Bug Report Identification -- Constructing Search Spaces for SBST using Machine Learning -- A Review of Ten Years of the Symposium on Search-Based Software Engineering -- Does Diversity Improve the Test Suite Generation for Mobile Applications -- Detect Performance Regression by Combining Static and Dynamic metrics Using Evolutionary Algorithms -- General Program Synthesis using Guided Corpus Generation and Automatic Refactoring -- A Search-Based Approach to Generate MC/DC Test Data for OCL Constraints -- Bio-Inspired Optimization of Test Data Generation for Concurrent Programs -- Revisiting Hyper-Parameter

Tuning for Search-based Software Testing -- Towards Automated Boundary Value Testing with Program Derivatives and Search -- Code Naturalness to Assist Search Space Exploration in Search-based Program Repair Methods -- Dorylus: An Ant Colony Based Tool for Automated Test Case Generation -- Software Improvement with Gin.

Sommario/riassunto

This book constitutes the refereed proceedings of the 11th International Symposium on Search-Based Software Engineering, SSBSE 2019, held in Tallinn, Estonia, in August/September 2019. The 9 research papers and 3 short papers presented together with 1 keynote and 1 challenge paper were carefully reviewed and selected from 28 submissions. SSBSE is a research area focused on the formulation of software engineering problems as search problems, and the subsequent use of complex heuristic techniques to attain optimal solutions to such problems. A wealth of engineering challenges - from test generation, to design refactoring, to process organization - can be solved efficiently through the application of automated optimization techniques. SBSE is a growing field - sitting at the crossroads between AI, machine learning, and software engineering - and SBSE techniques have begun to attain human-competitive results.
