UNINA9910828170003321
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Artificial neural network for software reliability prediction / / by Manjubala Bisi and Neeraj Kumar Goyal
Hoboken, New Jersey ; ; Beverly, Massachusetts : , : John Wiley & Sons : , : Scrivener Publishing, , 2017 ©2017
1-119-22396-2 1-119-22392-X 1-119-22393-8
[First edition]
1 online resource (220 pages) : illustrations, figures, tables
Performability engineering series. THEi Wiley ebooks.
006.32
Neural networks (Computer science) Computer software - Reliability
Inglese
Materiale a stampa
Monografia
Includes bibliographical references and index.
Introduction Software reliability modelling Prediction of cumulative number of software failures Prediction of time between successive software failures Identification of software fault-prone modules Prediction of software development efforts Recent trends in software reliability.
Artificial neural network (ANN) has proven to be a universal approximator for any non-linear continuous function with arbitrary accuracy. This book presents how to apply ANN to measure various software reliability indicators: number of failures in a given time, time between successive failures, fault-prone modules and development efforts. The application of machine learning algorithm i.e. artificial neural networks application in software reliability prediction during testing phase as well as early phases of software development process is presented as well. Applications of artificial neural network for the above purposes are discussed with experimental results in this book so that practitioners can easily use ANN models for predicting software reliability indicators.

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