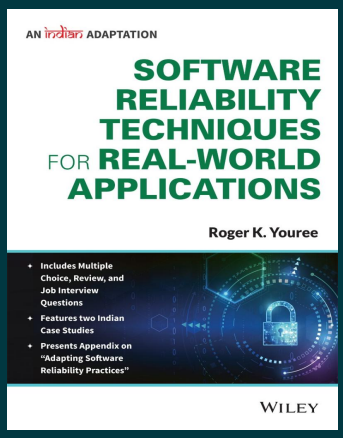
WILEY



Software Reliability Techniques for Real-World Applications, An Indian Adaptation

By Roger K. Youree

Paperback 9789363863668 ₹689.00

Pages: 368

Description

Software Reliability Techniques for Real-World Applications introduces clear ways to understand each process of software reliability and explains how it can be managed effectively and reliably. The book is supported by a plethora of detailed examples and systematic approaches, covering analogies between hardware and software reliability to ensure a clear understanding. Overall, this book helps readers create a higher level of confidence in software products.

About the Author

Roger K. Youree

ROGER K. YOUREE is a Systems Scientist at Instrumental Sciences, Inc. Dr. Youree received his Doctorate degree in Applied Mathematics from the University of Alabama in Huntsville, USA, and has more than thirty-five years of experience with military, NASA, and commercial programs, including responsibilities such as planning, cost estimates, and progress tracking.

Table of Contents

Preface to the Indian Adaptation
Preface
Series Editor’s Foreword by Dr. Andre Kleyner
Acronyms
Glossary
1 Introduction
1.1 Description of the Problem
1.2 Implications for Software Reliability
References
2 Understanding Defects
2.1 Where Defects Enter the Project System
2.2 Effects of Defects
2.3 Detection of Defects
2.4 Causes of Defects
References
3 Handling Defects
3.1 Strategy for Handling Defects
3.2 Objectives
3.3 Plan
3.4 Implementation, Monitoring, and Feedback
3.5 Analogies Between Hardware and Software Reliability Engineering
References
4 Project Phases
4.1 Introduction to Project Phases
4.2 Concept Development and Planning
4.2.1 Description of the CDP Phase
4.2.2 Defects Typical for the CDP Phase
4.2.3 Techniques and Processes for the CDP Phase
4.2.4 Metrics for the CDP Phase
4.3 Requirements and Interfaces
4.3.1 Description of the Requirements and Interfaces Phase
4.3.2 Defects Typical for the Requirements and Interfaces Phase
4.3.3 Techniques and Processes for the Requirements and Interfaces Phase
4.3.4 Metrics for the Requirements and Interfaces Phase
4.4 Design and Coding
4.4.1 Description of the DC Phase
4.4.2 Defects Typical for the DC Phase
4.4.3 Techniques and Processes for the DC Phase
4.4.4 Metrics for the DC Phase
4.5 Integration, Verification, and Validation
4.5.1 Description of the IV&V Phase
4.5.2 Defects Typical for the IV&V Phase
4.5.3 Techniques and Processes for the IV&V Phase
4.5.4 Metrics for the IV&V Phase
4.6 Product Production and Release
4.6.1 Description of the Product Production and Release Phase
4.6.2 Defects Typical for the Product Production and Release Phase
4.6.3 Techniques and Processes for the Product Production and Release Phase
4.6.4 Metrics for the Product Production and Release Phase
4.7 Operation and Maintenance
4.7.1 Description of the Operation and Maintenance Phase
4.7.2 Defects Typical for the OM Phase
4.7.3 Techniques and Processes for the OM Phase
4.7.4 Metrics for the OM Phase
4.8 Management
4.8.1 Description of Management
4.8.2 Defects Typical for Management
4.8.3 Techniques and Processes for Management
4.8.4 Metrics for Management
References
5 Roadmap and Practical Guidelines
5.1 Summary and Roadmap
5.1.1 Start of a Project
5.1.2 As a Member of an Organization
5.1.3 Troubled Projects
5.2 Guidelines
References
6 Techniques
6.1 Introduction to the Techniques
6.2 Techniques for Systems Engineering
6.3 Techniques for Software
6.4 Techniques for Reliability Engineering
6.5 Project-Wide Techniques and Techniques for Quality Assurance
References
Case Study 1
Case Study 2
Appendix A: Adapting Software Reliability Practices
Appendix B: Questions
Index

To purchase this product, please visit:
https://www.wileyindia.com/software-reliability-techniques-for-real-world-applications-an-indian-adaptation.html

Scan to buy