

1. Record Nr.	UNINA9910136394903321
Autore	Ben-Daya M (Mohamed)
Titolo	Introduction to maintenance engineering : modeling, optimization, and management / / Mohamed Ben-Daya, Uday Kumar, D. N. Prabhakar Murthy
Pubbl/distr/stampa	Chichester, England : , : Wiley, , 2016 ©2016
ISBN	1-118-92642-0 1-118-92658-7 1-118-92659-5
Descrizione fisica	1 online resource (817 p.)
Disciplina	620.0046
Soggetti	Maintenance
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Title Page; Table of Contents; Preface; Acknowledgments; Abbreviations; 1 An Overview; 1.1 Introduction; 1.2 Classification of Engineered Objects; 1.3 Performance of Engineered Objects; 1.4 Maintenance; 1.5 Evolution of Maintenance; 1.6 Focus of the Book; 1.7 Structure and Outline of the Book; Review Questions; Exercises; References; Part A: Maintenance Engineering and Technology; 2 Basics of Reliability Theory; 2.1 Introduction; 2.2 Decomposition of an Engineered Object; 2.3 Functions, Failures, and Faults; 2.4 Characterization of Degradation; 2.5 Reliability Concept and Characterization 2.6 Linking System and Component Failures2.7 Reliability Theory; 2.8 Summary; Review Questions; Exercises; References; 3 System Degradation and Failure; 3.1 Introduction; 3.2 Failure Mechanisms; 3.3 Classification of Failure Mechanisms; 3.4 Dynamic Nature of Stress and Strength; 3.5 Degradation of Products and Plants; 3.6 Degradation of Infrastructures; 3.7 Failure Mechanisms and Maintenance; 3.8 Summary; Review Questions; Exercises; References; 4 Maintenance - Basic Concepts; 4.1 Introduction; 4.2 Types of Maintenance Actions; 4.3 Preventive Maintenance Actions

4.4 Corrective Maintenance Actions4.5 Design Out Maintenance; 4.6 Uptime and Downtime; 4.7 Warranty and Maintenance; 4.8 Maintenance of Products; 4.9 Maintenance of Plants and Facilities; 4.10 Maintenance of Infrastructures; 4.11 Effective Maintenance; 4.12 Summary; Review Questions; Exercises; References; 5 Life Cycle of Engineered Objects; 5.1 Introduction; 5.2 Life Cycle Concept and Classification; 5.3 Standard Objects; 5.4 Custom-Built Objects; 5.5 Reliability: Product Life Cycle Perspective; 5.6 Life Cycle Cost; 5.7 Summary; Review Questions; Exercises; References

6 Technologies for Maintenance6.1 Introduction; 6.2 Technology - An Overview; 6.3 Assessing the State (Condition) of an Item; 6.4 Sensors; 6.5 Testing Technologies; 6.6 Data-Related Technologies; 6.7 Technologies for Maintenance of Products; 6.8 Technologies for Maintenance of Plants; 6.9 Technologies for Maintenance of Infrastructures; 6.10 Summary; Review Questions; Exercises; References; 7 Maintainability and Availability; 7.1 Introduction; 7.2 Maintainability - An Overview; 7.3 Elements of Maintainability; 7.4 Availability; 7.5 Maintainability Process; 7.6 Maintainability Standards 7.7 Relationship with Other Disciplines7.8 Summary; Review Questions; Exercises; References; Part B: Reliability and Maintenance Modeling; 8 Models and the Modeling Process; 8.1 Introduction; 8.2 Models; 8.3 Mathematical Modeling; 8.4 Approaches to Modeling; 8.5 Mathematical Modeling Process; 8.6 Statistics versus Probability Perspectives; 8.7 Modeling of Maintenance Decision Problems; 8.8 Summary; Review Questions; Exercises; Reference; 9 Collection and Analysis of Maintenance Data; 9.1 Introduction; 9.2 Data, Information, and Knowledge; 9.3 Maintenance Data; 9.4 Data Analysis 9.5 Descriptive Statistics

---