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Nota di contenuto	Production Scheduling; Table of Contents; Preface; Chapter 1. Statement of Production Scheduling; Chapter 2. Basic Concepts and Methods in Production Scheduling; 2.1. Introduction; 2.2. Basic scheduling concepts; 2.2.1. Tasks; 2.2.2. Resources; 2.2.3. Modeling; 2.2.4. Resolution methods; 2.2.5. Representation of solutions; 2.3. Project scheduling; 2.3.1. Modeling; 2.3.2 Resolution; 2.4 Shop scheduling; 2.4.1 Introduction; 2.4.2 Basic model; 2.4.3 One-machine problem; 2.4.4 Parallel machine problems; 2.4.5 Flow shop; 2.4.6 Job shop; 2.5 Conclusion; 2.6 Bibliography Chapter 3. Metaheuristics and Scheduling3.1. Introduction; 3.2. What is a combinatorial optimization problem?; 3.3. Solution methods for combinatorial optimization problems; 3.4. The different metaheuristic

types; 3.4.1. The constructive approach; 3.4.2. Local search approach; 3.4.3. The evolutionary approach; 3.4.4. The hybrid approach; 3.5. An application example: job shop scheduling with tooling constraints; 3.5.1. Traditional job shop modeling; 3.5.2. Comparing both types of problems; 3.5.3. Tool switching; 3.5.4. TOMATO algorithm; 3.6. Conclusion; 3.7. Bibliography

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6.2.1. Limits of the basic method

Sommario/riassunto

The performance of an company depends both on its technological expertise and its managerial and organizational effectiveness. Production management is an important part of the process for manufacturing firms. The organization of production relies in general on the implementation of a certain number of basic functions, among which the scheduling function plays an essential role. This title presents recently developed methods for resolving scheduling issues. The basic concepts and the methods of production scheduling are introduced and advanced techniques are discussed, providing readers with
