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Nota di contenuto	Cover; Title Page; Contents; Introduction and Presentation; Chapter 1. An Estimation of Distribution Algorithm for SolvingFlow Shop Scheduling Problems with Sequence-dependent FamilySetup Times; 1.1. Introduction; 1.2. Mathematical formulation; 1.3. Estimation of distribution algorithms; 1.3.1. Estimation of distribution algorithms proposed in the literature; 1.4. The proposed estimation of distribution algorithm; 1.4.1. Encoding scheme and initial population; 1.4.2. Selection; 1.4.3. Probability estimation; 1.5. Iterated local search algorithm; 1.6. Experimental results; 1.7. Conclusion 1.8. BibliographyChapter 2. Genetic Algorithms for Solving Flexible Job ShopScheduling Problems; 2.1. Introduction; 2.2. Flexible job shop scheduling problems; 2.3. Genetic algorithms for some related sub-problems; 2.4. Genetic algorithms for the flexible job shop problem; 2.4.1. Codings; 2.4.2. Mutation operators; 2.4.3. Crossover operators; 2.5. Comparison of codings; 2.6. Conclusion; 2.7. Bibliography; Chapter 3. A Hybrid GRASP-Differential Evolution Algorithmfor Solving

Flow Shop Scheduling Problemswith No-Wait Constraints; 3.1. Introduction; 3.2. Overview of the literature
3.2.1. Single-solution metaheuristics3.2.2. Population-based metaheuristics; 3.2.3. Hybrid approaches; 3.3. Description of the problem; 3.4. GRASP; 3.5. Differential evolution; 3.6. Iterative local search; 3.7. Overview of the NEW-GRASP-DE algorithm; 3.7.1. Constructive phase; 3.7.2. Improvement phase; 3.8. Experimental results; 3.8.1. Experimental results for the Reeves and Heller instances; 3.8.2. Experimental results for the Taillard instances; 3.9. Conclusion; 3.10. Bibliography
Chapter 4. A Comparison of Local Search Metaheuristicsfor a Hierarchical Flow Shop Optimization Problemwith Time Lags4.1. Introduction; 4.2. Description of the problem; 4.2.1. Flowshop with time lags; 4.2.2. A bicriteria hierarchical flow shop problem; 4.3. The proposed metaheuristics; 4.3.1. A simulated annealing metaheuristics; 4.3.2. The GRASP metaheuristics; 4.4. Tests; 4.4.1. Generated instances; 4.4.2. Comparison of the results; 4.5. Conclusion; 4.6. Bibliography; Chapter 5. Neutrality in Flow Shop Scheduling Problems: Landscape Structure and Local Search; 5.1. Introduction
5.2. Neutrality in a combinatorial optimization problem5.2.1. Landscape in a combinatorial optimization problem; 5.2.2. Neutrality and landscape; 5.3. Study of neutrality in the flow shop problem; 5.3.1. Neutral degree; 5.3.2. Structure of the neutral landscape; 5.4. Local search exploiting neutrality to solve the flow shop problem; 5.4.1. Neutrality-based iterated local search; 5.4.2. NILS on the flow shop problem; 5.5. Conclusion; 5.6. Bibliography; Chapter 6. Evolutionary Metaheuristic Based on GeneticAlgorithm: Application to Hybrid Flow Shop Problemwith Availability Constraints
6.1. Introduction

Sommario/riassunto

This book describes the potentialities of metaheuristics for solving production scheduling problems and the relationship between these two fields.For the past several years, there has been an increasing interest in using metaheuristic methods to solve scheduling problems. The main reasons for this are that such problems are generally hard to solve to optimality, as well as the fact that metaheuristics provide very good solutions in a reasonable time. The first part of the book presents eight applications of metaheuristics for solving various mono-objective scheduling problems. The sec