

1. Record Nr.	UNINA9910595055503321
Titolo	Computational logistics : 13th International Conference, ICCL 2022, Barcelona, Spain, September 21-23, 2022, proceedings // Jesica de Armas, Helena Ramalhinho and Stefan Voß, editors
Pubbl/distr/stampa	Cham, Switzerland : , : Springer Nature Switzerland AG, , [2022] ©2022
ISBN	3-031-16579-9
Descrizione fisica	1 online resource (479 pages)
Collana	Lecture notes in computer science
Disciplina	658.7
Soggetti	Computer programs - Execution - Management Management information systems Business logistics - Data processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Preface -- Organization -- Contents -- Maritime and Port Logistics -- Hybrid Berth Allocation for Bulk Ports with Unavailability and Stock Level Constraints -- 1 Introduction -- 2 Related Work -- 3 Model Formulation -- 3.1 Problem Description -- 3.2 Notation -- 3.3 Model -- 4 Numerical Experiments -- 4.1 Generation of Instances -- 4.2 Results Analysis and Discussion -- 4.3 Managerial Insights and Policy Implications -- 5 Conclusions -- References -- A Self-adaptive Hybrid Search Technique with Its Application to the Quadratic Semi-assignment and Berth Allocation Problems -- 1 Introduction -- 2 Problem Formulation -- 3 Related Work -- 4 The SACA -- 4.1 Solution Encoding -- 4.2 The Integration of a Best-Improvement and a Regret-Based Construction Method -- 4.3 The Integration of Regret-Based and Ranked-Based Crossover Operators -- 4.4 The Local Search -- 4.5 The Perturbation Method -- 4.6 The Facilitating Heap-Based Module -- 4.7 The Managing Self-adaptive Module -- 5 Computational Experiments -- 6 Concluding Remarks -- References -- The Multi-port Continuous Berth Allocation Problem with Speed Optimization -- 1 Introduction -- 2 Problem Formulation -- 2.1 Network-Flow Formulation -- 2.2 Set Partitioning Formulation -- 3 Solution Method -- 3.1 Branching -- 3.2 Computing Bounds -- 4 Results -- 4.1 Instance Generation -- 4.2

Comparison of Exact Methods -- 5 Conclusion -- References --
Optimization of a Ship-Based Logistics System for Carbon Capture and Storage -- 1 Introduction -- 2 Problem Definition -- 3 Mathematical Model -- 3.1 Modeling Approach and Notation -- 3.2 Model Formulation -- 4 Computational Study -- 4.1 Case Study and Input Data -- 4.2 Results -- 5 Concluding Remarks -- References -- A Linear Time Algorithm for Optimal Quay Crane Scheduling -- 1 Introduction -- 2 Container Terminals -- 3 Literature Review.
4 Problem Definition -- 5 Problem Complexity -- 5.1 Makespan Lower Bounds -- 5.2 The CreateSchedule Algorithm -- 5.3 Correctness Proof -- 5.4 Extensions of the QCSP -- 6 Conclusion -- References -- Impact of Rubber-Tired Gantry Crane Dimension on Container Terminal Productivity -- 1 Introduction -- 2 Theoretical Background -- 3 Method -- 3.1 Method to Estimate Stacking Density -- 3.2 Method to Estimate Yard Productivity -- 4 Results and Discussion -- 4.1 Estimated Stacking Density -- 4.2 Estimated Yard Productivity -- 5 Conclusion and Outlook -- References -- Vehicle Routing and Urban Logistics -- Fleet Size Control in First-Mile Ride-Sharing Problems -- 1 Introduction -- 2 Problem Description and Mathematical Model -- 3 Numerical Experiment -- 3.1 Instance Generation -- 3.2 Results -- 3.3 Solution Time -- 4 Conclusion -- References -- ILS-RVND Algorithm for Multi-trip Pickup and Delivery Problem, with Split Loads, Profits and Multiple Time Windows -- 1 Introduction -- 2 Problem Description -- 3 Solution Approaches -- 3.1 Iterated Local Search Algorithm -- 3.2 ILS-RVND -- 4 Computational Experiments and Discussion -- 5 Conclusion -- References -- The Biobjective Consistent Traveling Salesman Problem -- 1 Introduction -- 2 Problem Definition -- 3 Mathematical Formulations -- 4 Preliminary Computational Results -- 5 Conclusions -- References -- Optimized Dispatch of Fire and Rescue Resources -- 1 Introduction -- 2 Problem Statement and Mathematical Model -- 2.1 Alarm Plans -- 2.2 A Staffing and Dispatch Problem -- 2.3 A Mathematical Model -- 3 Solution Strategy -- 3.1 Exact Solutions -- 3.2 A Backup Greedy Heuristic -- 4 Computational Results -- 5 Using the Model -- 6 Conclusions -- References -- Industrial Waste Collection Optimization: A Real-World Case Study in Northern Italy -- 1 Introduction -- 2 Problem Description -- 3 Mathematical Model. 4 Iterated Greedy Algorithm -- 5 Computational Results -- 6 Conclusions -- References -- Solving a School Bus Routing Problem in Rural Areas: An Application in Brazil -- 1 Introduction -- 2 Problem Description -- 3 Literature Review -- 3.1 School Bus Routing Problem -- 3.2 Iterated Local Search -- 4 Solution Approach -- 5 Application -- 5.1 Scenario -- 5.2 Data Collection and Treatment -- 5.3 Computational Experiments -- 6 Conclusions and Future Works -- References -- Hinterland Intermodal Transport Routing as an Added Value Tool for Port Community Systems: A Colombian Case Study -- 1 Introduction -- 2 Colombian Hinterland Freight Transport -- 2.1 Road Transport -- 2.2 River Transport -- 2.3 Environmental Impact -- 2.4 Intermodal Freight Transport -- 3 Related Work -- 4 Model Description -- 4.1 Transport Network Description -- 4.2 Model Assumptions -- 4.3 Notations -- 4.4 Objective Function -- 4.5 Constraints -- 4.6 Data -- 4.7 Results -- 5 Generic System Design (Hinterland Transport Module Design) -- 5.1 Service Oriented Architecture -- 5.2 Proposed Prototype -- 6 Conclusion -- References -- Integrated Path Planning and Task Assignment Model for On-Demand Last-Mile UAV-Based Delivery -- 1 Introduction -- 2 Model Framework -- 2.1 Modelling Environment -- 3 Formulation -- 3.1 Mixed-Integer Linear Programming Approach -- 3.2 Dynamic Programming Approach -- 3.3 First-In-First-Out Approach -- 3.4 Path Planning Formulation -- 4 Case Study and Simulation -- 5

Conclusions and Further Work -- References -- Dynamic Time Slot Pricing Using Delivery Costs Approximations -- 1 Introduction -- 2 Literature -- 3 Problem Formulation -- 3.1 Problem Characteristics -- 3.2 Customer Choice Model -- 3.3 Determining Transportation Costs -- 4 Solution Approach -- 4.1 Cheapest Insertion Transportation Cost Approximation. 4.2 Regression-Based Transportation Costs Approximation -- 4.3 Obtaining Training Data -- 4.4 Simple Incentive Policy -- 5 Case Studies -- 5.1 Synthetic Case -- 5.2 European E-grocery Retailer -- 6 Computational Experiments -- 6.1 Results for the Synthetic Case -- 6.2 Results for the European E-grocery Retailer -- 7 Conclusions -- References -- The Green Sequencing and Routing Problem -- 1 Introduction -- 2 The Green SRP -- 3 Mathematical Formulation -- 4 Heuristic Resolution Approach -- 5 Numerical Experiments -- 5.1 The Reference Case Study -- 5.2 Computational Results -- 6 Conclusions -- References -- The Long-Haul Transportation Problem with Refueling Deviations and Time-Dependent Travel Time -- 1 Introduction -- 2 Literature Review -- 3 Methodology -- 3.1 Model -- 3.2 Heuristic Algorithm -- 4 Computational Experiments -- 4.1 Experimental Setting -- 4.2 Numerical Results -- 5 Conclusions -- References -- The Dynamic Drone Scheduling Delivery Problem -- 1 Introduction -- 2 Literature Review -- 3 Mathematical Model -- 3.1 Problem Description -- 3.2 Markov Decision Process Formulation -- 4 Reinforcement Learning Approach -- 5 Numerical Experiments -- 5.1 Experimental Design -- 5.2 Comparison of the RL Approach with Heuristic Strategies -- 5.3 Experiments on Different Instance Scenarios for the RL Approach -- 6 Conclusions -- References -- Integrating Clustering Methodologies and Routing Optimization Algorithms for Last-Mile Parcel Delivery -- 1 Introduction -- 2 Solution Approach: Algorithm and Parameters -- 2.1 Solution Algorithm -- 2.2 Two-dimensional k-Means Clustering Algorithm -- 2.3 Local Search Operators -- 3 Computational Results -- 4 Conclusions and Perspectives -- References -- Warehousing and Location -- SLAPStack: A Simulation Framework and a Large-Scale Benchmark Use Case for Autonomous Block Stacking Warehouses -- 1 Introduction. 2 Related Work -- 3 SLAPStack Simulation Framework -- 3.1 Inputs and Initialization -- 3.2 Step and Event Management -- 3.3 State Management Mechanisms and Routing -- 4 WEPASTacks Benchmark -- 4.1 Warehouse Setup -- 4.2 Dataset and Assumptions -- 5 Experiments -- 5.1 Experiment Setup -- 5.2 Results -- 6 Conclusion -- References -- Locating Hydrogen Production in Norway Under Uncertainty -- 1 Introduction -- 2 Related Work -- 3 The Mathematical Programming Model -- 3.1 Problem Description -- 3.2 Mathematical Formulation -- 4 Solution Approach -- 5 Case Study -- 5.1 Facilities and Production -- 5.2 Demand -- 6 Computational Results -- 7 Conclusion -- References -- Oblivious Stacking and MAX k-CUT for Circle Graphs -- 1 Introduction -- 1.1 Related Work -- 1.2 Contribution -- 2 Preliminaries -- 2.1 The Problem -- 2.2 The Instance Model -- 2.3 The Algorithm -- 3 Analysis of the Scheinerman Model -- 4 Analysis of the Extended Scheinerman Model -- References -- How Can a Refrigerated Warehouse Be Used to Store Energy? -- 1 Introduction -- 2 Literature Review -- 3 Model Description -- 3.1 Temperature Model -- 3.2 Electricity Price Forecast -- 3.3 Explanation of Control Options -- 4 Evaluation -- 5 Conclusion -- References -- CrossLog: Automatic Mixed-Palletizing for Cross-Docking Logistics Centers -- 1 Introduction -- 2 Problem Description -- 3 Related Work -- 4 Solution Approach -- 4.1 Packing and Compaction Phase -- 4.2 Second Variant Assignment of Boxes -- 5 Computational Experiments

-- 5.1 Instance Characteristics -- 5.2 Results -- 5.3 Examples of Palletized Instances -- 6 Conclusions -- References -- Supply Chain and Production Management -- A Framework on Centralised to Decentralised Logistics Control Structures Applied in Two Case Studies -- 1 Introduction -- 2 Background -- 3 Methodology and Research Setup -- 3.1 Interviews and Brainstorming Sessions. 3.2 Case Studies and Simulation Models.
