

| | |
|-------------------------|--|
| 1. Record Nr. | UNISA996466321003316 |
| Titolo | Computational Logistics [[electronic resource]] : 6th International Conference, ICCL 2015, Delft, The Netherlands, September 23-25, 2015, Proceedings / / edited by Francesco Corman, Stefan Voß, Rudy R. Negenborn |
| Pubbl/distr/stampa | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015 |
| ISBN | 3-319-24264-4 |
| Edizione | [1st ed. 2015.] |
| Descrizione fisica | 1 online resource (XV, 752 p. 215 illus. in color.) |
| Collana | Theoretical Computer Science and General Issues, , 2512-2029 ; ; 9335 |
| Disciplina | 004 |
| Soggetti | Algorithms Application software Software engineering Artificial intelligence Computer simulation Information technology—Management Computer and Information Systems Applications Software Engineering Artificial Intelligence Computer Modelling Computer Application in Administrative Data Processing |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Bibliographic Level Mode of Issuance: Monograph |
| Nota di contenuto | Intro -- Preface -- Organization -- Contents -- Transport Over Ground -- Ant Metaheuristic with Adapted Personalities for the Vehicle Routing Problem -- 1 Introduction -- 2 Ant Algorithms -- 3 Presentation of the and Literature Review -- 4 New Algorithms for the VRP -- 4.1 GR: A Greedy Constructive Algorithm with Restarts -- 4.2 ANT: An Ant Algorithm with Two Phases -- 4.3 AL: ANT Enhanced with Local Search Techniques -- 4.4 ALM: AL Enhanced with a Central Memory -- 4.5 ALMP: ALM with Different Ant Personalities -- 5 Results -- 6 Conclusion -- References -- The Round-Trip Ridesharing Problem with Relay Stations -- 1 Introduction -- 2 Problem Description and Notation |

-- 2.1 Matching Constraints -- 2.2 Objective of Ridesharing System --
3 Algorithmic Details -- 3.1 Adding Offer -- 3.2 Adding a Demand --
3.3 Total Gain in Round-trip -- 3.4 Removing Offers -- 4 Experiments
-- 5 Conclusion -- References -- A Hierarchical Model for the Cash
Transfer System Design Problem -- 1 Introduction -- 2 The Model --
2.1 Strategic Problem: An Uncapacitated Facility Location Problem
(UFLP) -- 2.2 Tactical Problem: A Vehicle Routing Problem (VRP) -- 2.3
Operational Problem: A Cash Management Problem Under Uncertainty
(CMPU) -- 2.4 Integrating Problem: The Vehicle Number Determination
Problem (VNPD) -- 3 A Numerical Study -- 4 Concluding Remarks --
References -- A Decision Support Model for Routing and Scheduling a
Fleet of Fuel Supply Vessels -- 1 Introduction -- 2 Problem Description --
3 Mathematical Model -- 3.1 Modeling Approach -- 3.2
Notation -- 3.3 Model -- 4 Computational Study -- 4.1 Test Instances
-- 4.2 Computational Experiments and Results -- 5 Concluding
Remarks -- References -- An Approximate Dynamic Programming
Approach to Urban Freight Distribution with Batch Arrivals -- 1
Introduction -- 2 Literature Review -- 3 Problem Formulation.
4 Markov Model -- 5 Solution Approach -- 6 Numerical Experiments --
7 Conclusions -- References -- Emission Vehicle Routing Problem with
Split Delivery and a Heterogeneous Vehicle Fleet -- 1 Introduction -- 2
Ecological Approaches for Mixed Vehicle Routing -- 3 Calculation of
Emissions -- 4 A Mathematical Model -- 5 Computational Study -- 5.1
Generation of Instances -- 5.2 Computational Results -- 6 Conclusion
-- References -- A Combined Liquefied Natural Gas Routing and
Deteriorating Inventory Management Problem -- 1 Introduction -- 2
Problem Description -- 3 Arc-Flow Model -- 3.1 Inventory Level at
Vertices -- 3.2 Objective Function and Constraints -- 4 Path-Flow
Model -- 4.1 Objective Function and Constraints -- 5 Computational
Results -- 5.1 Example 1 -- 5.2 Example 2 -- 6 Conclusion --
References -- An Ant Colony-Based Matheuristic Approach for Solving
a Class of Vehicle Routing Problems -- 1 Introduction -- 2 The
Proposed Matheuristic -- 2.1 Description -- 2.2 Implementation to VRP
Variants -- 3 Computational Study -- 3.1 Benchmark Instances -- 3.2
Results -- 4 Conclusion and Future Research -- Appendix --
References -- Transport Over Water -- A Hybrid Reactive Tabu Search
for Liner Shipping Fleet Repositioning -- 1 Introduction -- 2 Liner
Shipping Fleet Repositioning -- 3 Literature Review -- 4 A Hybrid
Reactive Tabu Search Approach -- 4.1 Graph Overview -- 4.2 Existing
SA Approach -- 4.3 Demand Source Completion Neighborhood -- 4.4
Ejection Chain Neighborhood -- 4.5 Reactive Tabu Search -- 4.6
Hybrid RTS-SA Approach -- 5 Computational Evaluation -- 5.1
Neighborhood Effectiveness -- 5.2 TS-S vs. TS-T -- 5.3 RTS-SA -- 6
Conclusion -- Risk Analysis and Quantification of Vulnerability in
Maritime Transportation Network Using AIS Data -- 1 Introduction -- 2
Data Collection -- 3 Data Analysis -- 3.1 Throughput Calculations --
3.2 Network Analysis.
4 Modeling and Simulation for Risk Assessment -- 4.1 Modeling -- 4.2
Quantification Method of the Risks -- 4.3 Analytical Approach -- 5
Conclusion -- References -- A Branch-and-Price Method for a Ship
Routing and Scheduling Problem with Stowage Constraints -- 1
Introduction -- 2 Problem Description and Mathematical Model -- 3
Solution Method -- 3.1 Subproblem -- 3.2 A Labeling Algorithm for the
Subproblems -- Labels. -- Label Extension. -- Dominance Criterion --
3.3 Acceleration Strategy -- 3.4 Branching -- 4 Computational Study
-- 4.1 Test Results -- 5 Concluding Remarks -- References --
Trajectory Tracking Control for Underactuated Surface Vessels Based on
Nonlinear Model Predictive Control -- 1 Introduction -- 2

Underactuated Surface Vessel Model Considering Disturbances -- 3
Nonlinear Predictive Model Control -- 3.1 Model Discretization -- 3.2
Objective Function Design -- 3.3 System Constraints -- 4 Simulation
Experiment -- 4.1 Model Parameters -- 4.2 Simulation Parameters --
4.3 Results -- 5 Conclusion and Future Work -- References --
Cooperative Distributed Collision Avoidance Based on ADMM for
Waterborne AGVs -- 1 Introduction -- 2 Vessel Models for Simulation
and Prediction -- 2.1 A Marine Surface Vessel Model -- 2.2
Successively Linearized Prediction Models for MPC -- 3 Centralized
Predictive Collision Avoidance -- 3.1 A Network Model -- 3.2
Convexified Collision Avoidance Constraints -- 3.3 Centralized
Formulation -- 4 Cooperative Distributed Collision Avoidance -- 4.1
ADMM Based Decomposition for Waterborne AGVs -- 4.2 Stopping
Criteria -- 5 Simulation Experiments -- 5.1 Controller and Scenario
Setups -- 5.2 Simulation Results and Discussions -- 6 Conclusions and
Future Research -- References -- A Matheuristic for the Liner Shipping
Network Design Problem with Transit Time Restrictions -- 1
Introduction -- 2 Literature Review.
3 Mathematical Model for the LSNDP-TT -- 4 Algorithm -- 4.1
Estimated Revenue Loss x Due to Transit Time Changes -- 5
Computational Results -- 5.1 Computational Results for LINER-LIB
2012 -- 6 Conclusions -- References -- A Positioning System Based on
Monocular Vision for Model Ship -- 1 Introduction -- 1.1 The Research
Background -- 1.2 The Research Significance -- 1.3 Work of this Paper
-- 2 Ship Target Recognition -- 2.1 Color Feature Recognition -- 2.2
Binarization and Contour Detection -- 3 Ship Motion State Computing
-- 3.1 Camera Coordinates to Focal Plane Coordinate -- 3.2 Focal
Plane Coordinate to Inertial Coordinate -- 3.3 Motion State Computing
-- 4 Experimental Analysis -- 4.1 Experimental Platform -- 4.2
Experimental Method -- 4.3 Data Analysis -- 5 Conclusion --
References -- Improvement of Navigation Conditions Using Model
Predictive Control - The Cuinchy-Fontinettes Case Study -- 1
Introduction -- 2 Modeling -- 2.1 Nonlinear Model for Simulation
Purposes -- 2.2 Linear Model for Control Purposes -- 2.3 Modelling
Hydraulic Structures -- Undershot Gate. -- 2.4 Overshot Gate -- 2.5
Lock Operations -- 3 Control Development -- 4 The Cuinchy
Fontinettes Reach - Case Study -- 5 Results and Discussion -- 6
Conclusions and Future Research -- References -- A Survey on the Ship
Loading Problem -- 1 Introduction -- 2 The Ship Loading Problem -- 3
Literature Review -- 3.1 Operational Stowage Planning Literature --
Stowage Planning with Terminal Considerations. -- 3.2 Load
Sequencing Problem Literature -- 3.3 Equipment Assignment and
Scheduling Literature -- 3.4 Integration Efforts -- 4 Conclusions and
Future Research Directions -- References -- Characterization of the
Portuguese SSS into the Europe: A Contribution -- 1 Introduction -- 2
SSS Evolution and Characterization: A Literature Review -- 3 Survey
Methodology.
4 Survey Results and Discussion -- 4.1 EU and Portuguese Context --
4.2 Survey Results -- 5 Conclusions -- References -- Yard Crane
Dispatching to Minimize Total Weighted Vessel Turnaround Times in
Container Terminals -- 1 Introduction -- 2 Related Work -- 3 The
Formulation of the YC Dispatching Problem -- 3.1 General Description
-- 3.2 The Objective Function -- 4 MTWMT- Dispatching to Minimize
Total Weighted Maximum Tardiness -- 5 Performance Evaluation -- 5.1
Design of Experiments -- 5.2 Results and Discussions -- 6 Conclusions
-- References -- A Two Phase Approach for Inter-Terminal Transport
of Inland Vessels Using Preference-Based and Utility-Based
Coordination Rules -- 1 Introduction -- 2 Coordination Framework --

3 Single Vessel Optimization -- 3.1 Problem Description -- 3.2 Mathematical Formulation -- 3.3 Solution Method -- 4 Multiple Vessel Coordination -- 4.1 Problem Description -- 4.2 Preference-Based Coordination -- 4.3 Utility-Based Coordination -- 4.4 No Coordination -- 5 Simulation Experiments -- 5.1 Scenario Description -- 5.2 Rotation Plans -- 5.3 Departure Time of the Last Vessel -- 5.4 Total Sojourn Time -- 5.5 Total Waiting Time -- 5.6 Discussion -- 6 Conclusions and Future Research -- References -- Learning Maritime Traffic Rules Using Potential Fields -- 1 Introduction -- 2 Background and Method -- 3 STRAND -- 4 Anomalies and Discovered Rules -- 4.1 Anomalies -- 4.2 Traffic Rules at Sea -- 5 Discussion -- 6 Conclusion -- References -- Internal Coordination within a System -- Bootstrap Estimation Intervals Using Bias Corrected Accelerated Method to Forecast Air Passenger Demand -- 1 Introduction -- 2 Air Pax Forecasting Demand Methods -- 3 Bootstrap Estimation Intervals for Pax Demand -- 3.1 Bootstrap Methodology -- 3.2 Confidence Bands Methods -- 4 Empirical Application and Monte Carlo Experiments -- 4.1 Experimental Data.
4.2 Pax Demand Distribution per Distance Block.

Sommario/riassunto

This book constitutes the refereed proceedings of the 6th International Conference on Computational Logistics, ICCL 2015, held in Delft, The Netherlands, in September 2015. The 50 papers presented in this volume were carefully reviewed and selected for inclusion in the book. They are organized in topical sections entitled: transport over ground, transport over water, international coordination within a system, external coordination among systems.
