

1. Record Nr.	UNINA9910254292603321
Titolo	Optimization and Decision Science: Methodologies and Applications : ODS, Sorrento, Italy, September 4-7, 2017 // edited by Antonio Sforza, Claudio Sterle
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-67308-4
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XVI, 641 p. 99 illus., 52 illus. in color.)
Collana	Springer Proceedings in Mathematics & Statistics, , 2194-1009 ; ; 217
Disciplina	519.3
Soggetti	Mathematical optimization Operations research Decision making Big data Optimization Operations Research/Decision Theory Big Data/Analytics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Robust Network Control and Disjunctive Programming -- Data Science meets Optimization -- From Mixed-Integer Linear to Mixed-Integer Bilevel Linear Programming -- Outperforming Image Segmentation by Exploiting Approximate k-means Algorithms -- Approximate Decision Tree-Based Multiple Classifier Systems -- Look-Up Tables for Efficient Non-Linear Parameters Estimation -- On the UTA Methods for Solving the Model Selection Problem -- The Importance to Manage Data Protection in the Right Way: Problems and Solutions -- The Use of Configurational Analysis in the Evaluation of Real Estate Dynamic -- A Partitioning Based Heuristic for a Variant of the Simple Pattern Minimality Problem -- Patient-Centered Objectives as an Alternative to Maximum Utilisation: Comparing Surgical Case Solutions -- A Hierarchical Multi-Objective Optimisation Model for Bed Leveling and Patient Priority Maximisation -- Multi Classifier Approaches for Supporting Clinical Diagnosis -- Offline Patient Admission Scheduling

Problems -- Stochastic Dynamic Programming in Hospital Resource Optimization -- Column Generation Embedding Greedy for the Maximum Network Lifetime Problem with Interference Constraints -- A Heuristic for Multi-Attribute Vehicle Routing Problems in Express Freight Transportation -- Global Optimization Procedure to Estimate a Starting Velocity Model for Local Full Waveform Inversion -- Ant Colony Optimization Algorithm for Pickup and Delivery Problem with Time Windows -- Initialization of Optimization Methods in Parameter Tuning for Computer Vision Algorithms -- Using OR + AI to Predict the Optimal Production of Offshore Wind Parks: A Preliminary Study -- Mathematical Programming Bounds for Kissing Numbers -- Learning Greedy Strategies at Secondary Schools: An Active Approach -- Comparison of IP and CNF Models for Control of Automated Valet Parking Systems -- A Districting Model to Support the Redesign Process of Italian Provinces -- A Stochastic Maximal Covering Formulation for a Bike Sharing System -- A Model and Algorithm for Solving the Landfill Siting Problem in Large Areas -- Optimal Content Distribution and Multi-Resource Allocation in Software Defined Virtual CDNs -- Facility Location with Item Storage and Delivery -- A Shared Memory Parallel Heuristic Algorithm for the Large-Scale P-Median Problem -- Robust Plasma Vertical Stabilization in Tokamak Devices via Multi-objective Optimization -- Performance Analysis of Single and Multi-Objective Approaches for the Critical Node Detection Problem -- Stable Matching with Multi-Objectives: A Goal Programming Approach -- On Relation of Possibly Efficiency and Robust Counterparts in Interval Multiobjective Linear Programming -- Sustainable Manufacturing: An Application in the Food Industry -- The Optimal Energy Procurement Problem: A Stochastic Programming Approach -- Best and Worst Values of the Optimal Cost of the Interval Transportation Problem -- A Queueing Networks-Based Model for Supply Systems -- Capital Asset Pricing Model: A Structured Robust Approach -- On the Properties of Interval Linear Programs with a Fixed Coefficient Matrix -- Bounding Multistage Stochastic Programs: A Scenario Tree Based Approach -- A Polyhedral Study of the Robust Capacitated Edge Activation Problems -- Performance Evaluation of a Push Merge System with Multiple Suppliers, an Intermediate Buffer and a Distribution Center with Parallel Channels: The Erlang Case -- A Push Shipping-Dispatching Approach for High-Value Items: From Modeling to Managerial Insights -- Optimization Models for Cut Sequencing -- Bin Packing Problems with Variable Pattern Processing Times: A Proof-of-Concept -- Upper Bounds Categorization for Constrained Two-Dimensional Guillotine Cutting -- Some Complexity Results for the Minimum Blocking Items Problem -- A MILP Algorithm for the Minimization of Train Delay and Energy Consumption -- A MILP Reformulation for Train Routing and Scheduling in Case of Perturbation -- The Impact of a Clustering Approach on Solving the Multi-Depot IRP -- Optimal Paths for Dual Propulsion Vehicles on Real Street Network Graphs -- On the Forward Shortest Path Tour Problem -- A Flow Formulation for the Close-Enough Arc Routing Problem -- A Mesoscopic Approach to Model route Choice in Emergency Conditions -- Last-mile Deliveries by using Drones and Classical Vehicles -- A Scenario Planning Approach for Shelter Location and Evacuation Routing -- The Vehicle Routing Problem with Occasional Drivers and Time Windows -- Preemptive Scheduling of a Single Machine with Finite States to Minimize Energy Costs -- An Optimization Model for the Outbound Truck Scheduling Problem at Cross-Docking Platforms -- Min-Max Regret Scheduling to Minimize the Total Weight of Late Jobs with Interval Uncertainty -- Practical Solution of Parallel Machines

This proceedings volume highlights the state-of-the-art knowledge related to optimization, decisions science and problem solving methods, as well as their application in industrial and territorial systems. It includes contributions tackling these themes using models and methods based on continuous and discrete optimization, network optimization, simulation and system dynamics, heuristics, metaheuristics, artificial intelligence, analytics, and also multiple-criteria decision making. The number and the increasing size of the problems arising in real life require mathematical models and solution methods adequate to their complexity. There has also been increasing research interest in Big Data and related challenges. These challenges can be recognized in many fields and systems which have a significant impact on our way of living: design, management and control of industrial production of goods and services; transportation planning and traffic management in urban and regional areas; energy production and exploitation; natural resources and environment protection; homeland security and critical infrastructure protection; development of advanced information and communication technologies. The chapters in this book examine how to deal with new and emerging practical problems arising in these different fields through the presented methodologies and their applications. The chapter topics are applicable for researchers and practitioners working in these areas, but also for the operations research community. The contributions were presented during the international conference "Optimization and Decision Science" (ODS2017), held at Hilton Sorrento Palace Conference Center, Sorrento, Italy, September 4 – 7, 2017. ODS 2017, was organized by AIRO, Italian Operations Research Society, in cooperation with DIETI (Department of Electrical Engineering and Information Technology) of University "Federico II" of Naples.