Table of Contents

Foreword	
Table of Contents	viii
Part 1: Crew Scheduling	
Solution of Large-Scale Railway Crev Problems: The Italian Experience Alberto Caprara, Matteo Fischetti, Pier Luig Paolo Toth and Daniele Vigo, ITALY	1
Crew Pairing for a Regional Carrier Guy Desaulniers, Jacques Desrosiers and CANADA and Marius M. Solomon, USA	d Arielle Lasry,
An Improved ILP System for Driver Sarah Fores, Les Proll and Anthony Wren, U	_
An Exact Algorithm for the Vehicle at Crew Scheduling Problem Knut Haase and Christian Friberg, GERMA	63
Driver Scheduling Using Genetic Algorith Embedded Combinatorial Traits Ann S.K. Kwan, Raymond S.K. Kwan, and	81
An Integrated Approach to Extra-Url and Vehicle Scheduling Andrea Gaffi and Maddalena Nonato, ITALY	103
Producing Train Driver Schedules un Differing Operating Strategies Ann S.K. Kwan, Raymond S.K. Kwan, Marg and Anthony Wren, UK	129
Integrated Scheduling of Buses and D	

Part 2: Vehicle Scheduling and Service Design

Object Oriented Bus Vehicle Scheduling – The BOOST System	
Raymond S.K. Kwan and Mohammad A. Rahin, UK	
Solving Large-Scale Multiple-Depot Vehicle Scheduling Problems Andreas Löbel, GERMANY	195
Exact Algorithms for the Multi-Depot Vehicle Scheduling Problem Based on Multicommodity Network Flow Type Formulations Marta Mesquita and José Paixão, PORTUGAL	223
Timetable Synchronization for Buses Avishai Ceder and Ofer Tal, ISRAEL	247
Transportation Service Network Design: Models and Algorithms Cynthia Barnhart and Daeki Kim, USA	261
Locomotive Assignment Using Train Delays Koorush Ziarati, François Soumis and Jacques Desrosiers, CANADA	283
Part 3: Real-Time Control, Demand Responsive Systems and Information Systems	
Optimal Real-Time Control Strategies for Rail Transit Operations During Disruptions Susan W. O'Dell and Nigel H.M. Wilson, USA	299
Modeling Real-Time Control Strategies in Public Transit Operations Xu Jun Eberlein, Nigel H.M. Wilson and David Bernstein, USA	325
Knowledge-Based Decision Support System for Real-Time Train Traffic Control Alexander Fay and Eckehard Schnieder, GERMANY	347

Requirements for, and Design of, an Operations Control System for Railways Leena Suhl and Taïeb Mellouli, GERMANY	371
Telebus Berlin: Vehicle Scheduling in a Dial-a-Ride System Ralf Borndörfer, Martin Grötschel, Fridolin Klostermeier and Christian Küttner, GERMANY	391
Advanced Technologies in the Design of Public Transit & City Information Systems Joachim R. Daduna and Kamen Danowski, GERMANY	423

Appendix 1 List of Authors

Appendix 2 List of the Presented Papers Which are not Included in this Volume