Contents

Introduction ................................................................. 1
Concetta Pragliola, Roberto Setola, Antonio Sforza and Valeria Vittorini

Towards Integrated Railway Protection ................................. 13
Jacques Colliard

The Railway Security: Methodologies and Instruments for Protecting a Critical Infrastructure .................. 25
Franco Fiumara

Vulnerability Assessment in RIS Scenario Through a Synergic Use of the CPTED Methodology and the System Dynamics Approach .................................................. 65
Francesca De Cillis, Maria Carla De Maggio and Roberto Setola

Cumana and Circumflegrea Railway Lines: A Circle Network in the Western Metropolitan Area of Naples .............. 91
Arturo Borrelli, Francesco Murolo, Antonio Sforza and Claudio Sterle

Coping with Suicide Bombing Israel Railways Security Challenges 2000–2005 ....................................................... 109
Chanan Graf and Yuval Alon

Technologies for the Implementation of a Security System on Rail Transportation Infrastructures .................. 123
Pasquale D’Amore and Annarita Tedesco

A Model-Driven Process for Physical Protection System Design and Vulnerability Evaluation ........................ 143
Valeria Vittorini, Stefano Marrone, Nicola Mazzocca, Roberto Nardone and Annarita Drago
Optimal Location of Security Devices ........................................... 171
Antonio Sforza, Stefano Starita and Claudio Sterle

The METRIP Tool ............................................................................. 197
Stefano Marrone, Nicola Mazzocca, Concetta Pragliola,
Antonio Sforza, Claudio Sterle and Valeria Vittorini

Optimizing Investment Decisions for Railway Systems Protection .... 215
Maria Paola Scaparra, Stefano Starita and Claudio Sterle

The Security into the Metro System: The Copenhagen
Metro Experience ............................................................................ 235
Klaus Hestbek Lund, Annarita Tedesco and Michele Bigi
Railway Infrastructure Security
Setola, R.; Sforza, A.; Vittorini, V.; Pragliola, C. (Eds.)
2015, XIV, 249 p. 114 illus., Hardcover
ISBN: 978-3-319-04425-5