1. Record Nr. UNINA9910337782403321

Autore	Covic Filip
Titolo	Container Handling in Automated Yard Blocks : An Integrative Approach Based on Time Information / / by Filip Covic
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-05291-5
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (325 pages)
Collana	Contributions to Management Science, , 1431-1941
Disciplina	658.4034 387.1068
Soggetti	Production management Operations research Management science Computer simulation Engineering economics Engineering economy Operations Management Operations Research, Management Science Simulation and Modeling Engineering Economics, Organization, Logistics, Marketing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction to Container Handling Research -- Container Terminal Environment -- Container Handling in the Yard Area -- Literature Review on Container Handling in the Yard Area -- Integrated Container Handling -- Algorithmic Analysis Based on the Problem Decomposability -- Re-marshalling Problem -- Terminal Appointment System -- Interaction Effects of Yard Block Properties, Re-marshalling and TAS -- Conclusion and Recommendations for Efficient Container Handling. .
Sommario/riassunto	The yard block of a container terminal is the central point of synchronisation for asynchronous container flows between deep-sea vessels and transport to the hinterland. The structure of the block

stipulates that containers are stacked on top of each other with only the topmost container directly accessible by a yard crane. This book describes a holistic and integrative approach to container handling in yard blocks to optimise productivity by minimising re-handling operations. The results provide insights for academic scholars as well as for experts from practical terminal planning and operations. The approach presented is two-fold: first, a theoretical foundation of the interdependencies in decision-making is established using mathematical programming. Secondly, operations involving uncertain container arrival information are examined on the basis of a simulation with a rigorous experimental design and statistical evaluation. In this context, the book develops container-handling strategies and analyses the impact of a system for vehicle arrival management – the "Terminal Appointment System". The findings presented in this book are the result of a close cooperation with experts at the port of Hamburg and build on previous research. .