

Studies in Systems, Decision and Control 155

Aleksander Śładkowski *Editor*

Transport Systems and Delivery of Cargo on East— West Routes

 Springer

Studies in Systems, Decision and Control

Volume 155

Series editor

Janusz Kacprzyk, Polish Academy of Sciences, Warsaw, Poland
e-mail: kacprzyk@ibspan.waw.pl

The series “Studies in Systems, Decision and Control” (SSDC) covers both new developments and advances, as well as the state of the art, in the various areas of broadly perceived systems, decision making and control- quickly, up to date and with a high quality. The intent is to cover the theory, applications, and perspectives on the state of the art and future developments relevant to systems, decision making, control, complex processes and related areas, as embedded in the fields of engineering, computer science, physics, economics, social and life sciences, as well as the paradigms and methodologies behind them. The series contains monographs, textbooks, lecture notes and edited volumes in systems, decision making and control spanning the areas of Cyber-Physical Systems, Autonomous Systems, Sensor Networks, Control Systems, Energy Systems, Automotive Systems, Biological Systems, Vehicular Networking and Connected Vehicles, Aerospace Systems, Automation, Manufacturing, Smart Grids, Nonlinear Systems, Power Systems, Robotics, Social Systems, Economic Systems and other. Of particular value to both the contributors and the readership are the short publication timeframe and the world-wide distribution and exposure which enable both a wide and rapid dissemination of research output.

More information about this series at <http://www.springer.com/series/13304>

Aleksander Śladkowski
Editor

Transport Systems and Delivery of Cargo on East–West Routes

 Springer

Editor
Aleksander Śladkowski
Faculty of Transport
Silesian University of Technology
Katowice
Poland

ISSN 2198-4182 ISSN 2198-4190 (electronic)
Studies in Systems, Decision and Control
ISBN 978-3-319-78294-2 ISBN 978-3-319-78295-9 (eBook)
<https://doi.org/10.1007/978-3-319-78295-9>

Library of Congress Control Number: 2018935232

© Springer International Publishing AG, part of Springer Nature 2018

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Printed on acid-free paper

This Springer imprint is published by the registered company Springer International Publishing AG part of Springer Nature
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Contents

Part I Global Logistics and Regional Aspects of Cargo Delivery	
Sustainable Development of Transport Systems for Cargo	
Flows on the East-West Direction	3
Aleksandr Rakhmangulov, Aleksander Śładkowski, Nikita Osintsev, Olesya Kopylova and Natalja Dyorina	
Analysis and Development Perspective Scenarios of Transport	
Corridors Supporting Eurasian Trade	71
Aleksander Śładkowski and Maria Cieśla	
The Role of Railway Transport in East-West Traffic	
Flow Conditions of the Slovak Republic	121
Anna Dolinayova, Lenka Cerna and Vladislav Zitricky	
Transnational Value of the Republic of Kazakhstan	
in International Container Transportation	171
Aleksander Śładkowski, Zhomart Abdirassilov and Amangeldy Molgazhdarov	
Economic Aspects of Freight Transportation Along the	
East-West Routes Through the Transport and Logistics	
System of Kazakhstan	205
Zhanarys Raimbekov, Bakyt Syzdykbayeva and Kunduz Sharipbekova	
Part II Technical and Informatics Issues of Transport Systems	
Present and Future Operation of Rail Freight Terminals	233
Marco Antognoli, Luigi Capodilupo, Cristiano Marinacci, Stefano Ricci, Luca Rizzetto and Eros Tombesi	
Development of the Silesian Logistic Centres in Terms of Handling	
Improvement in Intermodal Transport on the East-West Routes	275
Damian Gąska and Jerzy Margielewicz	

Perfection of Technical Characteristics of the Railway Transport System Europe-Caucasus-Asia (TRACECA)	303
George Tumanishvili, Tamaz Natriashvili and Tengiz Nadiradze	
Potential and Problems of the Development of Speed Traffic on the Railways of Uzbekistan	369
Saidburkhan Djabbarov, Makhamadjan Mirakhmedov and Aleksander Sładkowski	