Detailed instructions for authors and contacts to editors can be found on journal’s webpage: www.archivesoftransport.com

The Archive of Transport is indexed by the Polish Ministry of Science and Higher Education.

All articles are peer-reviewed by two external reviewers. Reviewers list is published once each year in the last issue of the journal and also on journal’s webpage.

Copyright © 2018 by Warsaw University of Technology.

All rights reserved. No part of this publication may be modified, reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from publisher.

Printed by:

Circulation 100 copies.
ARCHIVES OF TRANSPORT

Editor-in-Chief
Marianna Jacyna,
Warsaw University of Technology, Poland;

Editorial Committee
Andrzej Chojnacki,
Military University of Technology,
Poland;
Agnieszka Merkisz-Guranowska,
Poznan University of Technology,
Poland;
Andrzej Szarata,
Cracow University of Technology,
Poland;
Adam Weintrit,
Gdynia Maritime University,
Poland;

Editorial Advisory Board
Chairman
Marian Tracz,
Cracow University of Technology, Poland;
Deputy Chairman
Jerzy Kisilowski,
University of Technology and Humanities, Poland;

Members
Salvatore Cafiso,
University of Catania, Italy;
Jan Celko,
University of Zilina, Slovakia;
Csaba Koren,
Széchenyi István University of Applied Sciences,
Hungary;
Bogusław Liberadzki,
Warsaw School of Economics, Poland;
Raffaele Mauro,
University of Trento, Italy;
Laurence R. Rilett,
University of Nebraska, USA;
Efim N. Rozenberg,
Moscow Institute of Railway Engineering (MIIT),
Russia;
Kumares Sinha,
Purdue University, USA;

Statistical Editor:
Tomasz Ambroziak,
Warsaw University of Technology, Poland;
Jolanta Zak,
Warsaw University of Technology, Poland;

Editorial Secretary:
Konrad Lewczuk,
Warsaw University of Technology, Poland;
Emilian Szczepański,
Warsaw University of Technology, Poland;

Linguistic Editor
Joseph Woodburn,
University of Bristol, United Kingdom;
Associate Editors (Subject Editors)

Transport Engineering
Andrzej Chudzikiewicz,
Warsaw University of Technology, Poland;
Radim Lenor,
VŠB-Technical University of Ostrava, Czech Republic;

Transport Infrastructure and Management
Gebhard Hafer,
University of Applied Sciences in Berlin, Germany;
Edward Michlowicz,
AGH University of Science and Technology, Poland;

Optimization and Algorithmic in Transport
Tadeusz Nowicki,
Military University of Technology, Poland;
Askoldas Podviezko,
Vilnius Gediminas Technical University, Lithuania;

Logistics Engineering
Goran Dukic,
University of Zagreb, Croatia;
Tomasz Nowakowski,
Wrocław University of Technology, Poland;

Railway Transport
Iurii Domin,
Volodymyr Dahl East Ukrainian National University, Ukraine;
Andrzej Lewiński,
University of Technology and Humanities, Poland;

Road Transport
Dusan Malindzak,
Technical University of Košice, Slovakia;
Juan Carlos Villa,
Texas A&M Transportation Institute, USA;

Air Transport
Jerzy Manerowski,
Warsaw University of Technology, Poland;
Jozsef Rohacs,
Budapest University of Technology and Economics, Hungary;

Maritime Transport
Zbigniew Burciu,
Gdynia Maritime University, Poland;
LU Huaqing,
Zhejiang Ocean University, China;

Ecology of Transport
Jerzy Merkisz,
Poznan University of Technology, Poland;
Vitalii Naumov,
Kharkov National Automobile and Highway University, Ukraine;

Telematics in Transport
Vladimir Hahanov,
Kharkov National University of Radioelectronics, Ukraine;
Miroslaw Siergiejczyk,
Warsaw University of Technology, Poland;

Transport Safety
Geza Tarnai,
Budapest University of Technology and Economics, Hungary;
George P. Sakellaropoulos,
Aristotle University of Thessaloniki, Greece;

Mobility in Transport
Wlodzimierz Choromański,
Warsaw University of Technology, Poland;
Burford J. Furman,
San Jose State University, USA;

Editorial Committee Contact:
ARCHIVES OF TRANSPORT
Faculty of Transport, Warsaw University of Technology
Koszykowa 75, 00-662 Warsaw
Poland
E-mail: archivessecretary@wt.pw.edu.pl
Phone: +48 22 234-58-55
# Contents

**Shy Bassan**  
Empirical modeling of the relationship between decision sight distance and stopping sight distance based on AASHTO ................................................................. 7

**Antonio Comi, Berta Buttarazzi, Massimiliano Schiraldi, Rosy Innarella, Martina Varisco, Paolo Traini**  
An advanced planner for urban freight delivering ................................................................. 27

**Liejun He, Xinming Lin**  
An improved mathematical model for vehicle crash against highway guardrails .................. 41

**Libor Ižvolt, Peter Dobeš, Juraj Pieš**  
Verification of boundary conditions of numerical modeling of the track substructure thermal regime – influence of the snow cover ................................................................. 51

**Eric M. Laflamme, Paul J. Ossenbruggen**  
Estimation of stochastic traffic capacity using extreme value theory and censoring: A case study in Salem, New Hampshire ................................................................................. 61

**Ewelina Sendek-Matysiak, Dariusz Pyza**  
The assignment of vehicle assessment based on multi criteria decision making .................... 77

**Binbin Sun, Tiezhu Zhang, Song Gao, Wenqing Ge, Bo Li**  
Design of brake force distribution model for front-and-rear-motor-drive electric vehicle based on radial basis function ......................................................................................... 87

**Zhenfeng Wu, Yanzhong Huo, Wangcai Ding, Zihao Xie**  
Bionic shape design of electric locomotive and aerodynamic drag reduction ........................ 99