



No. 112/2019

ISSN 2657-6988 (online)
ISSN 2657-5841 (printed)
DOI: 10.26408

SCIENTIFIC JOURNAL

of Gdynia Maritime University

Quarterly

Gdynia, December 2019

EDITOR-IN-CHIEF: Ireneusz CZARNOWSKI

SUBJECT EDITOR: Robert STAROSTA

Scientific Journal of Gdynia Maritime University is the continuation of the journal previously published by Gdynia Maritime University, entitled **Zeszyty Naukowe Akademii Morskiej w Gdyni**.

PROOFREADING: Ewa GIEDZIUN

ENGLISH PROOFREADING: "SKRIVANEK" Sp. z o.o.

COVER DESIGN: Jolanta BIAŁOUS

EDITORIAL STAFF: Publishing House of Gdynia Maritime University

PUBLISHER:



Gdynia Maritime University

ul. Morska 81-87

81-225 Gdynia

www.umg.edu.pl

<http://zeszyty.umg.edu.pl>

ISSN 2657-6988 (online)

ISSN 2657-5841 (printed)

DOI: 10.26408



© Copyright by Gdynia Maritime University