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## **Editorial preface**

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## Dear Readers,

It is my great pleasure to present to you the 49<sup>th</sup> issue of the Scientific Journals of the Maritime University of Szczecin. This issue contains the most current research findings from the fields of marine engineering, sea navigation and transport engineering. We have also included papers discussing the issue of mining safety, the use of new communication techniques as well as data mining models to predict ocean wave energy flux in the absence of wave recordings.

The introductory article for this issue has been prepared by Professor Oliver Mayer, Senior Principal Engineer at General Electric Global Research. The article is devoted to the concept of using TRIZ (Theory of Inventive Problems Solving) tools, especially the innovative application of trimming for rationalising electrical networks. Its publication has been financed by the Polish Ministry of Science and Higher Education from a fund dedicated to the promotion of science. It is our expectation that this resource will be both interesting and useful for those searching for state-of-the-art methods of developing technical systems.

The Marine Technology and Innovation section features articles on marine hydromechanics, dual-fuel engines, and selected aspects of vessel automation.

The Navigation section contains articles on a mobile navigation system, concepts related to the intact stability of a bulk carrier, and control procedures for merchant vessel course indicators.

The Transportation Engineering section contains articles on inland transportation, and experimental verification of the concept of using controlled pyrotechnic reactions as a source of energy as a part of the transport system from the seabed.

We strongly encourage authors to submit their articles, and readers are more than welcome to forward their remarks. To access an online version of the current issue as well as archival volumes, please visit our website http://scientific-journals.eu/.

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