Journal of Marine Science and Engineering

an Open Access Journal by MDPI

CiteScore: 5.0
Impact Factor: 2.8

Special Issue Reprint

Automatic Control and Routing of Marine Vessels

Edited by: Evgeny Veremey and Margarita Sotnikova

Due to the intensive development of the global economy, many problems are constantly emerging connected to the safety of ships' motion in the context of increasing marine traffic. These problems seem to be especially significant for the further development of marine transportation services, with the need to considerably increase their efficiency and reliability. One of the most commonly used approaches to ensuring safety and efficiency is the wide implementation of various automated systems for guidance and control, including such popular systems as marine autopilots, dynamic positioning systems, speed control systems, automatic routing installations, etc.

This Special Issue focuses on various problems related to the analysis, design, modelling, and operation of the aforementioned systems. It covers such actual problems as tracking control, path following control, ship weather routing, course keeping control, control of autonomous underwater vehicles, ship collision avoidance. These problems are investigated using methods such as neural networks, sliding mode control, genetic algorithms, L2-gain approach, optimal damping concept, fuzzy logic and others. This Special Issue is intended to present and discuss significant contemporary problems in the areas of automatic control and the routing of marine vessels.

mdpi.com/books/reprint/6435