#### ANNOTATIONS of science works published in professional magazine «River transport (XXI<sup>st</sup> century)» 3(107)'2023

Combined vessels as effective way to increase efficiency of oil shipping by water transport / E.Ronnov, Y. Kochnev, I. Gulyaev // River transport (XXI<sup>st</sup> century). 2023. – № 3 (107). – p. 30-32.

Describes the results of research of economic efficiency of using combined vessels based on authors' mathematical model and software.

Key words: combined vessel, tanker, cargo ship, economic efficiency. Contacts: tmnnkoch@mail.ru

## Goals and objectives of control system for autonomous vessels on inland waterways / V. Dmitriev, V. Karetnikov // River transport (XXI<sup>st</sup> century). 2023. – № 3 (107). – p. 33-35.

Describes goals and objectives of control system for autonomous vessels on inland waterways.

**Key words:** safety of navigation, automation of control, autonomous vessels.

Contacts: vlidmi@mail.ru, spguwc-karetnikov@yandex.ru

### Analysis of perspective types of low-carbon fuels for water transport / I. Rozov, P. Snytnikov, O. Spirenkova, S. Titov, A. Tushina, // River transport (XXI<sup>st</sup> century). 2023. – № 3 (107). – p. 35-38.

Analyses features of alternative types of low-carbon fuels to define most perspective variants for using on water transport.

**Key words:** alternative ship fuel, carbon trace, harmful emissions, ecology, water transport.

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## Ways to control vessel while transferring it from one trajectory to another / V. Tikhonov, R. Khvostov, Y. Bazhankin, I. Osokin // River transport (XXI<sup>st</sup> century). 2023. – № 3 (107). – p. 42-44.

Suggests strict algorithms for maneuvering of vessel in case of alteration from the straight course to the turn of constant radius and in reverse sequence.

**Key words:** navigation, curvilinear motion, rectilinear trajectory, steering angle.

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### The features of gas engine for river fleet / M. Frolov, N. Anisimova // River transport (XXI<sup>st</sup> century). 2023. – № 3 (107). – p. 44-47.

Describes the features of working process of gas engine for river fleet and factors affecting it.

Key words: gas engine, operation process, fuel-air mixture, river fleet. Contacts: m.frolov@aorumo.ru, anisimova.annt@gmail.com

## Analytical system for organization strategic management in shipping company / V. Buneev, R. Semenova // River transport (XXI<sup>st</sup> century). 2023. – № 3 (107). – p. 47-49.

Presents the results of implementation of adopted strategies for increasing competitiveness and updating the fleet.

Key words: shipping company, strategic management, analytical system. Contacts: buneev\_vm@mail.ru, rim.semenowa@yandex.ru

# Application of «decision tree» algorithm to determine time spent by containers in logistics chain depending on stability of cargo transshipment schedule in sea ports / D. Morozova // River transport (XXI<sup>st</sup> century). 2023. – № 2 (106). – p. 50-53.

Shows the results of researching of application of «decision tree» algorithm to determine time spent by containers in logistics chain depending on stability of cargo transshipment schedule in seaports, prognosis variants of transshipment with taking into account potential risks.

**Key words:** sea transport, container shipping, algorithm «decision tree», risks.

Contacts: morozovada@gumrf.ru

# The analysis of methods for production and application of hydrogen for the purpose of improving environmental friendliness and efficiency of ship power plants / T.Totiya, A. Epikhin, E. Khekert, M. Modina, O. Gerasimenko // River transport (XXI<sup>st</sup> century). 2023. – № 2 (106). – p. 53-57.

Describes possibility, expediency and environmental component of using hydrogen in water transport. Analyses advantages and disadvantages of hydrogen injection together with air-fuel mixture into cylinders of internal combustion engine.

Key words: water transport, internal combustion engine, hydrogen.

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## Important aspects of ship acceptance by customer from contactor / I. Shatokhin, V. Sinitsyn // River transport (XXI<sup>st</sup> century). 2023. – № 3 (107). – p. 58-59.

Describes main moments which must be taken into account while acceptance ship after building or repair.

**Key words:** acceptance of ship, critical equipment, safety. **Contacts:** i.shatokhin85@yandex.ru, v.i.sinitsin@nsawt.ru