

**ANNOTATIONS**  
**of science works published in international magazine**  
**«River transport (XXI<sup>st</sup> century)» 4(92)'2019**

**About efficiency of organizing cargo transportations on Ufa river / S. Sergeev // River transport (XXI<sup>st</sup> century). 2019. – № 4 (92). – p. 15-19.**

Analyses possibility and reasonability of organizing cargo transportations on Ufa River by integrating infrastructure of river communication into regional transport system. Shows the results of project's economic efficiency calculations.

**Key words:** Ufa river, shipping, cargo forecast, efficiency.

**Contacts:** ssnprgs@mail.ru

**Saralevskiy water transport hub and problems of improvement of shipping conditions on lower Volga / R. Chalov, A. Zavadskiy // River transport (XXI<sup>st</sup> century).2019. – № 3 (91) – p. 20-23.**

Describes actual the problems of shipping near Saralevskiy water transport hub and the ways to solve them.

**Key words:** Saralevskiy water transport, shipping.

**Contacts:** rschalov@mail.ru, az200611@rambler.ru

**About perfection of management processes of river transport with the help of integrated information systems / Y. Iskanderov, V. Gaskarov, V. Doroshenko // River transport (XXI<sup>st</sup> century).2019. – № 4 (92) – p. 44-46.**

Analyses reasonability of perfection management processes of river transport with the help of integrated information systems created with taking into account experience of forming river information services and based on multi-agent technologies.

**Key words:** river transport, integrated information system, river information services, multi-agent technology.

**Contacts:** iskanderov\_y\_m@mail.ru, kaf\_koib@gumrf.ru, kaf\_rmf@gumrf.ru

**The analysis of human mistakes' influence on navigation safety in modern conditions / O.Marandykina, D.Popov// River transport (XXI<sup>st</sup> century).2019. – № 4 (92) – p. 46-48.**

Makes analysis of factors which cause human mistakes and influence execution of duties by ship's crew.

**Key words:** navigation safety, human mistakes, control system.

**Contacts:** omarandykina@inbox.ru

**The principle of choosing optimal parameters and characteristics of propulsion unit by using coefficient of relative hydrodynamic quality /Z. Kagan/ River transport (XXI<sup>st</sup> century). 2019. – № 4 (92). – p. 48-51.**

Describes the author's method of calculation and choosing optimal parameters and characteristics of any types of propulsion devices based on created diagram of representing their dynamic and kinematic characteristics in coordinates  $\xi'$ –KQ1/3.

**Key words:** diagram, coefficient of relative hydrodynamic quality, propulsion device.

**Contacts:** lorkagan@gmail.com

**The system approach to decrease dust concentration in the air while handling coal in the port / S. Skvortsov // River transport (XXIst century). 2019. – № 4 (92). – p. 51-53.**

Analyses stages of coal handling in the port which polluting the air. Describes complex approach to decrease its dustiness by using newest technical devices.

**Key words:** coal handling in the port, environment, ecological safety, pneumatic hydro-irrigation system.

**Contacts:** evgeny5405@gmail.com

**Innovative technology for increasing energetic effectiveness of energy supply autonomy systems on water transport / V. Manusovm T. Zayko, B. Palagushkin, D. Ivanov, P. Martynov, A. Semenov, S. Reutov // River transport (XXIst century).2019. – № 4 (92) – p. 53-56.**

Substantiates rationality of increasing energetic effectiveness and reliability of energy supply autonomy systems of moving object on water transport by using liquid nitrogen as dielectric medium in high temperature superconducting transformers. Presents results of experiments and calculations.

**Key words:** water transport, autonomy power supply system, high temperature superconducting transformer, short circuit current limitation, liquid nitrogen.

**Contacts:** manusov36@yandex.ru, rektor@nsawt.ru, 9134889132@mail.ru, mrdemasi123@gmail.com, Vanss1896mart@mail.ru, arseniysemyonov@ya.ru, - bazalt15@yandex.ru

**The substantiation of definition method for geometric parameters of submerged in water part of ship's hull for adequate modelling forces which influence on it / R. Khvostos, M. Osokin // River transport (XXIst century).2019. – № 4 (92) – p. 56-58.**

Describes the method of determination geometric parameters of submerged in water part of ship's hull according to data (obtained from theoretical drawing) for adequate modeling hydrodynamic forces which influence on it.

**Key words:** theoretical drawing, mathematical model, waterline, ship's hull extremity.

**Contacts:** nnover86@mail.ru, sudovod@vgavt-nn.ru

**About profitability of using on fleet transformer electric devices with high-temperature superconducting windings / V. Manusov, B. Palagushkin, S. Reutov, E. Semenov, M. Razdobreev // River transport (XXIst century).2019. – № 4 (92) – p. 59-62.**

Substantiates profitability of using on fleet transformer electric devices with high-temperature superconducting windings and liquid nitrogen (as a dielectric medium), and also increasing energy efficiency of onboard electric equipment.

**Key words:** autonomous power supply systems, transformers, the phenomenon of superconductivity, zero loss of active power, energy efficiency.

**Contacts:** manusov36@yandex.ru, 9134889132@mail.ru, bazalt15@yandex.ru, arseniysemyonov@ya.ru; razdobreev@cn.ru