

**Abramov, A. P.; Vydruk, D. G.; Fedunov, B. E.**

**A computer system for evaluating the realizability of algorithms of crew activity.** (English. Russian original) [Zbl 1263.68025](#)

*J. Comput. Syst. Sci. Int.* 45, No. 4, 627-639 (2006); translation from *Izv. Ross. Akad. Nauk, Teor. Sist. Upravl.* 2006, No. 4, 122-134 (2006).

Summary: At early stages of designing onboard algorithms of the system-generating core of an anthropocentric object (algorithms aimed at implementation on onboard digital computers, algorithms suggested to the crew for implementation, and algorithms of crew activity), the problem of evaluating the realizability of these algorithms arises. A classification of algorithms of crew activity is given. A computer system that allows the engineer-designer of these algorithms to evaluate their realizability in time expenditures of the crew spent on decision-making processes, tracking operations, and execution of the decisions made is presented.

**MSC:**

**68M07** Mathematical problems of computer architecture

Cited in **1** Document

**Full Text:** [DOI](#)

**References:**

- [1] B. E. Fedunov, "Constructive Semantics of Anthropocentric Systems for Development and Analysis of Specifications of Algorithms for Onboard Intelligent Systems," *Izv. Ross. Akad. Nauk, Teor. Sist. Upr.*, No. 5 (1998) [*Comp. Syst. Sci.* 37 (5), 807 (1998)]. · [Zbl 1066.68554](#)
- [2] P. V. Poznyakov and B. E. Fedunov, *Foundations of Information Integration of Onboard Equipment* (Izd-vo MAI, Moscow, 1993) [in Russian].
- [3] O. A. Nevzorova and B. E. Fedunov, "LoTA, a System for the Analytical Processing of Technical Texts: Main Concepts and Design Decisions," *Izv. Ross. Akad. Nauk, Teor. Sist. Upr.*, No. 3 (2001) [*Comp. Syst. Sci.* 40 (3), 487-498 (2001)]. · [Zbl 1083.68621](#)
- [4] T. A. Kondrikova and B. E. Fedunov, "BORT Computer System Supporting the Design of Specifications of Onboard Intelligence," *Izv. Ross. Akad. Nauk, Teor. Sist. Upr.*, No. 3 (1999) [*Comp. Syst. Sci.* 38 (3), 444-455 (1999)]. · [Zbl 1082.93548](#)
- [5] B. E. Fedunov, "Evaluation of the Efficiency of Specifications of algorithms of Onboard Intelligence of Anthropocentric Objects," *Mekhatronika, Avtomat., Upr.*, No. 5 (2002).
- [6] A. P. Tkachenko and B. E. Fedunov, "An Efficiency Estimate for Specifications of Algorithms of Onboard Intelligence of an Anthropocentric Object," *Izv. Ross. Akad. Nauk, Teor. Sist. Upr.*, No. 5 (2003) [*Comp. Syst. Sci.* 42 (5), 757-777 (2003)]. · [Zbl 1110.68531](#)
- [7] M. B. Turnovskii and B. E. Fedunov, "Comparison and Evaluation of the Specifications of Algorithms of Onboard Intelligence of an Aircraft-Fighter in a Duel Situation of a Long-Distance Air Fight," *Izv. Ross. Akad. Nauk, Teor. Sist. Upr.*, No. 6 (2004) [*Comp. Syst. Sci.* 43 (6), 941-954 (2004)]. · [Zbl 1126.93386](#)
- [8] B. E. Fedunov, *A Methodology for Evaluation of Realizability of the Graph of Operator Decisions of an Anthropocentric Object in Development of Algorithms of Onboard Intelligence*, *Izv. Ross. Akad. Nauk, Teor. Sist. Upr.*, No. 3 (2002).
- [9] *Foundations of Engineering Psychology*, Ed. by B. F. Lomov (Vysshaya Shkola, Moscow, 1977) [in Russian].
- [10] *Introduction to Ergonomics*, Ed. by V. P. Zinchenko (Sovetskoe Radio, Moscow, 1974) [in Russian].
- [11] G. M. Zarakovskii, *Psychological Analysis of Labor Activity* (Nauka, Moscow, 1967) [in Russian].
- [12] I. E. Tsubulevskii, *A Human as a Block of a Tracking System* (Nauka, Moscow, 1981) [in Russian].
- [13] *Handbook on Engineering Psychology*, Ed. by B. F. Lomov (Mashinostroenie, Moscow, 1982) [in Russian].
- [14] *Anti-Aircraft Aviation and Scientific and Technical Progress*, Ed. by E. A. Fedosov (Drofa, Moscow, 2002) [in Russian].

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.