

MODEL OF KNOWLEDGE IN THE EXPERT SYSTEM OF AID TO THE CREW

© 2008 A. A. Vorontsov

Moscow State Technical University named after Bauman

The paper deals with knowledge formation in the expert system of aid to the aircraft crew for the subject area «Aircraft crew actions in emergency situations». A combined hierarchical model of knowledge formation is proposed, based on object approach, production rules and Petri network structure. The knowledge formation developed makes it possible to form an integral model of the subject area for the analysis of database and knowledge conclusion mechanism.

Expert system, knowledge formation subject area, system of aid to the crew, decision taking, conclusion mechanism

References

1. S. P. Nikiforov. Airborne facilities for increasing transport aircraft flight safety. System of crew intellectual support in emergencies. Zhukovsky: Aviation Equipment Research Institute, 1999.

2. D. Jarratano, G. Riley. Expert systems: principles of developing and programming, 4th edition/. Transl. from English. Moscow:

Publishing House «Williams», 2007.

3. K. V. Yakovlev. Conclusion network model in production systems.// Transactions of the sixth international symposium «Intellectual systems». – Saratov, 2004.

4. V. N. Plotnikov, V. A. Sukhanov. Sys-tems based on knowledge. – Mos-cow:Publishing House of Moscow State Tech-nical University, 1995.

Vorontsov Andrey Andreyevitch, Head of department of construction and maintenance of the “Electronic bird” testing ground. Office: Private joint-stock company “Sukhoi Civil Aircraft”, Moscow State Technical University named after N. E. Bauman. Area of research: expert systems, systems of aid to the crew, knowledge processing, control systems.