

ALGORITHM TO ASSESS THE TECHNICAL LEVEL OF EARTH REMOTE SENSING SPACECRAFT

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The aim of this work is the development of an algorithm to assess the technical level of Earth remote sensing spacecraft. The composition and sequence of actions and computational formulas for obtaining a numerical value of the technical level are determined. The algorithm is based on a new method for space hardware technical level assessment developed around Saaty's analytic hierarchy process and the multicriterion optimization and decision-making theory. The technical level index is one of the basic technical and economic indices of R&D work which, together with the development and operation cost, governs the competitive ability of a newly developed product or system. The algorithm was used in the evaluation of the technical level of the Sich-2M Earth remote sensing spacecraft.

The results of this work may be used in the space industry in the development of new Earth remote sensing spacecraft and components thereof.

Keywords: *assessment algorithm, space engineering product, spacecraft, analytic hierarchy process, multicriterion optimization, technical level.*

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