

Multi-criteria Decision Making: A Case Study in the Site Selection for Satellite Assembly and Tests

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Abstract

In our highly competitive environment in communication area with a developed network, it is necessary to locate the equipments in sites that can see extreme operating and environmental demands on design and required quality. It is therefore vital to ensure that clear guidance and control measures are specified to ensure the survivability and reliability of equipment being used in satellite's assembly and tests. While this may significantly improve the cost, quality, and ultimately the performance of the product, it introduces new risks also. In this paper we present a case study in a real-world decision problem arising in the assembly and testing sector of a satellite. We tackle the problem by resorting to the well-known AHP method and to the multi-criteria decision making analysis.

Keywords

Satellite assembly and tests, AHP-based approach, selection criteria