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Archives of Civil and Mechanical Engineering

Volume 10, Issue 3, 2010, Pages 123-141

Multiple criteria analysis of foundation instalment alternatives by applying Additive Ratio Assessment (ARAS) method

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[https://doi.org/10.1016/S1644-9665\(12\)60141-1](https://doi.org/10.1016/S1644-9665(12)60141-1)

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The paper presents the process of selection the foundation instalment alternative, which have to be the most appropriate and safe for building which stands on the aquiferous soil. The selection is based on a set of criteria: costs of instalment, instalment duration, the complexity of decisions, advantages and disadvantages of decisions, transferability and maintainability of installed foundation system, past experience implementing the approved decisions, etc. The criteria for evaluation and their importance are selected by taking into consideration the interests and goals of the client as well as factors that influence the efficiency of construction process and safety of future building. The solution of problem was made by applying Additive Ratio ASsessment (ARAS) method. The proposed technique could further be applied to substantiate the selection of effective alternative of structures, technologies, investments and etc.

Keywords:

foundation; selection; evaluation; decision making; alternative; weights; operation research; multiple criteria; MCDM; Additive Ratio ASsessment; ARAS

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