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An approach to determining the set of devices and technologies for a smart home

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Abstract

With limited financial resources available, transforming a home into a smart home may be expedient to be accomplished in several stages. In such a case, the efficient selection of devices and technologies at each stage is important. An approach to this end is proposed in this paper. In the respective optimization problem, defined as a Boolean mathematical programming one, economic and non-economic indices are combined. A conventional example and a Case study with the use of the proposed algorithms for solving the problem is described, which confirm the appropriateness of the approach.

Keywords: *algorithm; case study; financial resources; indices; optimization problem*

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