Developing a model for decision support model of equipments maintenance strategy

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Abstract

This research aims to develop a model of decision-making for the selection of the most appropriate strategy of the maintenance methods of equipments. A model has been developed in order to determine the maintenance plan that causes the lowest cost, whether the cost of repairing or losses result from interruptions of work for maintenance.

The model depends on data collected from equipments records during their work on projects, and it requires the monitoring of the equipment work for enough period (long or short depending on the size of the project and the number of equipments). These data are analysed and used in the construction of model. We use Markov chains technique as a mathematical tool adapted to the studied problem.

Keywords: construction projects, maintenance management, decision support systems, Markov chains.

For the abstract in Arabic see pages (11-24).

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References: