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عنوان مقاله:

Solving time-cost trade-off problem using multi-objective decision environment

محل انتشار:

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نویسنده:

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خلاصه مقاله:

This paper proposes a multi-objective decision environment for the well-known schedule compression problem. For this purpose, the method uses the Analytical Hierarchy Process (AHP) to model this multiobjectivedecision environment in which, activities are queued for crashing based on priorities established in that environment. A wide range of methods are introduced in the literature to perform schedule compression utilizing genetic algorithms, heuristic rules, Harmony search, and analogy with the directstiffness method for structural analysis. Although all these methods consider only cost in the process of schedule compression, a recently conducted survey, by the authors, indicates that project managersconsider more than one factor in this process. In fact, the lack of consideration of factors that are important to contractors has been attributed to the limited use of the existing methods. To address this need, the newly developed method accounts for factors identified to be important from the conducted survey. A numerical example is analysed to demonstrate the use of the developed method and to illustrate its practical features

کلمات کلیدی:

Analytical Hierarchy Process, Project schedule compression, Time-cost trade-off analysis, Schedule crashing, Project acceleration

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