عنوان مقاله:

Fuzzy Network Analysis for Projects with High Level of Risks – Uncertainty in Time and Structure

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خلاصه مقاله:

In order to have better insight of project characteristics, different kinds of fuzzy analysis for project networks have been recently proposed, most of which onsider activities duration as the main and only source of imprecision and vagueness, but as it is usually experienced in real projects, the structure of the network is also subject to changes. In this paper we consider three types of imprecision namely activity duration, activity existence and precedence relation existence which make our general fuzzy project network. Subsequently, a corrected forward recursion is proposed for analysis of this network. Since the convexity and normalization of traditional fuzzy numbers are not satisfied, some corrected algebraic operations are also presented. Employing the proposed method for a real project reveals that our method results in more applicable and realistic times for activities and project makespan in comparison to Classic fuzzy PERT.

کلمات کلیدی:

Project network Fuzzy PERT Fuzzy structure Non-convex fuzzy numbers High-risk projects

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