

## عنوان مقاله:

Analysis of Dynamic and Static Approaches to Deal with the Stochastic Dynamic Facility Layout Problem

## محل انتشار:

سیزدهمین کنفرانس بین المللی مهندسی صنایع (سال: 1395)

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## خلاصه مقاله:

Stochastic dynamic facility layout problem is a multi-period problem in which materials flow is a random variable so that its parameters like expected value and variance are randomly changed from period to period. In this paper, to cope with such a problem, two quadratic assignment-based mathematical models corresponding to dynamic and static approaches are developed. The proposed models are verified and validated by performing various analyses including robustness, stability, and sensitivity by using design of experiment and benchmark methods. Dynamic programming algorithm, which is coded in Matlab is used to solve the proposed models. The main conclusions are as follows: (i) the facility rearrangement cost affects the behavior, robustness, and stability of the dynamic layout (ii) decision maker's attitude affects the robustness of the dynamic and the static layouts; and (iii) changes in the input parameters lead to different layout configurations and the inputs values affect their sensitivity ranking.

## کلمات کلیدی:

Stochastic dynamic facility layout problem; Static layout; Dynamic programming

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/648665>

