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RESOLVE FACILITY LAYOUT PROBLEM BY USING GENETIC ALGORITHMS

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ABSTRACT

The component layout problem requires efficient search of large, discontinuous spaces. The efficient layout planning of a production site is a fundamental task to any project undertaking. This paper describes a genetic algorithm (GA) to solve the problem of optimal facilities lay out in manufacturing system design so that material-handling costs are minimized. The performance of the proposed heuristics tested over problems selected from the literature. Computational results indicate that the proposed approach gives better results compared to many existing algorithms in this area.

KEYWORDS: facility layout; flexible manufacturing; stochastic programming.