

A Genetic Algorithm For The Part Family Formation Problem

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Summary

Recently, there has been a lot of interest in group technology (GT) from researchers as well as from practitioners. This interest is explained by the fact that GT supports new manufacturing philosophies. One of the main issues in GT is the part family formation problem which is concerned with grouping similar products into the same families. Many researchers have tackled this problem and many algorithms have been proposed for it. In this paper, we present a genetic technique-based heuristic for the quadratic integer programming model of the part family formation problem which was formulated by Kusiak et al. (1986). The heuristic is tested on several problems from the literature, and preliminary results are very promising.

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