

Loading Methodology for a Capacity Constrained Job-Shop

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Abstract : This paper presents a genetic algorithm based loading methodology for a capacity constrained job-shop with the consideration of alternative process plans for each part to be produced. Performance analysis of the proposed methodology is carried out for two case studies by considering two different manufacturing scenarios. Results obtained indicate that the methodology is quite effective in improving the shop load balance, and hence, it can be included in the frameworks of manufacturing planning systems of job-shop oriented industries.

Keywords : manufacturing planning, loading, genetic algorithm, job shop

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