

To Study the Performance of FMS under Different Manufacturing Strategies

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Abstract : A flexible manufacturing system has been studied under different manufacturing strategies. The aim of this paper is to test the impact of number of pallets and routing flexibility (design strategy) on system performance operating at different sequencing and dispatching rules (control strategies) at unbalanced load condition (planning strategies). A computer simulation model is developed to evaluate the effects of aforementioned strategies on the make-span time, which is taken as the system performance measure. The impact of number of pallets is shown with the different levels of routing flexibility. In this paper, the same manufacturing system is modeled under different combination of sequencing and dispatching rules. The result of the simulation shows that there is definite range of pallets for each level of routing flexibility at which the systems performs satisfactorily.

Keywords : flexible manufacturing system, manufacturing, strategy, makespan

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