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MINIMIZE THE RENTAL COST FOR SPECIALLY STRUCTURED TWO STAGE FLOW SHOP SCHEDULING PROCESSING TIME, SET UP TIME ASSOCIATED WITH THEIR PROBABILITIES INCLUDING JOB BLOCK CRITERIA AND TRANSPORTATION TIME

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Abstract

The present paper is attempt to develop a new heuristic algorithm, an alternative to the traditional algorithm proposed by Johnson's (1954) to find the optimal sequence to minimize the utilization time of the machines and hence their rental cost for two stage specially structured flow shop scheduling under specified rental policy in which processing times and set up time are associated with their respective probabilities including transportation time and job block criteria. The proposed method is very simple and easy to understand and also provide an important tool for the decision maker. Algorithm is justified by numerical illustration.

Key Words : *Specially structured flow shop scheduling, Rental policy, Processing time, Weightage of jobs, Set up, Job block.*