Abstract

The aim of this paper is to introduce the concept of disjoint job blocks in n-jobs, three machines flow shop scheduling problem to minimize the total elapsed time and rental cost of the machines under a specified rental policy in which the processing time associated with probabilities including transportation time. A heuristic approach for flow shop with a computational algorithm to find optimal or near optimal solution is described. A computer program followed by a numerical illustration is given to justify the proposed algorithm.

References

- D. Gupta, S. Sharma, Seema and Shefali, "Bicriteria in n x 2 flow shop scheduling under specified rental policy, processing time and setup time each associated with probabilities including job-block", Industrial Engineering Letter. 1(1), 2011, 1–12.
- D. Gupta, S. Sharma and Seema, "Bicriteria in n x 3 flow shop scheduling under specified rental policy, processing time associated with probabilities including transportation time and job block criteria", Mathematical Modelling and Theory. 1(2), 2011, 7-18.
- S. M. Johnson, 1954. Optimal two and three stage production schedule with set up times included, Naval Research Logistics Quart. 1 (1954), 61-68.

**Index Terms**

Computer Science

**Keywords**

Flow Shop Scheduling disjoint Job Block transportation Time  Processing Time