

COMPARISON OF JSSP BASED GENETIC ALGORITHM WITH BENCHMARK PROBLEMS FOR OPTIMALITY

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ABSTRACT

In manufacturing environments there is a requirement for optimum utilization of available resources. In Enterprise resource planning, production planning plays an important role, which has impact on the revenue of the plant. Jobshop scheduling problem is a NP-Hard and completely constrained problem. Exact methods of solution take exponential time and heuristic methods give sub optimal solutions. Genetic Algorithms (GA) are the most sought after techniques to get optimal solutions, and in this paper 10x10 Jobshop scheduling problem is solved using GA. The code is developed in MATLAB and the results are compared with benchmark problems.

KEYWORDS: Optimality, Benchmark, JSSP.