

## **Genetic Algorithm for Permutation Flowshop Scheduling Problem to Minimize the Makespan**

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### **Abstract**

Generally the Flowshop Scheduling Problem (FSSP) is a production environment problem where a set of  $n$  jobs has to visit a set of  $m$  machines in the same order. In permutation flowshops the sequence of jobs is the same on all machines with the objective of minimizing the sum of completion times using Genetic Algorithm. A significant research effort has been devoted for sequencing jobs in a flowshop for minimizing the make span. No machine is allowed to remain idle when a job is ready for processing. This paper, describes the Permutation Flowshop Scheduling Problem (PFSSP) solved by using Genetic Algorithm (GA) to minimize the makespan. The basic concept of genetic algorithm is, that it is developed for finding near to optimal solution for the minimum make span of the  $n$  jobs,  $m$  machines permutation flowshop scheduling problem. It shows that the innovative genetic algorithm approach which provides competitive results for the solution of Permutation Flowshop Scheduling Problem.

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