

GENETIC ALGORITHM BASED APPROACH TO PROCESS SCHEDULING

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Abstract

The process scheduler allocates the CPU using a process scheduling algorithm based on scheduling policy. Several policies were proposed, each of them having certain drawbacks as also benefits. Scheduling of processes must be carefully planned so that CPU utilization is utmost important. The scheduling problems are NP-hard and hence near optimal sequences are generated via genetic algorithm. It is possible to determine the best sequence by permutating all jobs, which is simple but time consuming, as it requires considerable time to test each sequence from permutation. This paper attempts to present the sequencing based on genetic algorithm. This paper proposes a technique based on Genetic Algorithm (GA) for finding more than one process sequence with minimum waiting time. The paper presents the experimented results of finding a near optimal solution.

Keywords: Genetic Algorithm, NP-hard, Optimization, Scheduling