Algorithm for Powered Grid scheduling

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Abstract - Literature reported that grid computing is a form of distributed computing that coordinates and shows computing power, applications , data storage and network resources across dynamic and geographically dispersed organizations. Resource management and application scheduling are the two major problems in grid computing. The resources are heterogeneous in terms of architecture, power, configuration, and availability. This complicates the task scheduling problem. The major objective of grid scheduling is to reduce the makespan. Hence the scheduling must consider some specific characteristics of the job and decode the metrics to be used accordingly. Ant algorithm, which is one of the heuristic algorithm suits well for the grid scheduling environment. This paper proposes an modified ant algorithm for grid scheduling problem that is combined with local search. The proposed ant algorithm takes into consideration the free time of the resources and the execution time of the jobs to achieve better resource utilization and better scheduling.