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## Abstract

In the computational grid environment, algorithms specified for scheduling plays a vital role in managing the jobs. The main aim of the scheduling algorithms is to allocate the tasks to the availability at the mean time to the suitable resources. The makespan and cost for task execution can be minimized by an efficient task scheduling algorithm; it also helps to improve the load balancing among the resources in the grid environment. In recent days a major

problem is, scheduling the independent tasks in a grid environment. In this paper, scheduling the independent task is taken as a challenge and a near optimal solution is obtained.

Un-Prevail systematic grouping Genetic algorithm (UPSGA) is used by us to find the optimal solution for the task scheduling problem in grid environment. Fuzzy system is used to schedule the tasks indirectly to improve the load balancing between the resources. Dissimilarity based fuzzy crossover operator-II is proposed along with Android (friend map finder) for scheduling the tasks indirectly. Availability of resources and conflicts of costs provides the chance to cross over efficiently in fuzzy system. Near optimal solution for load balancing between resources are achieved with the help of makespan results.

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### **Index Terms**

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### **Keywords**

Grid Computing   Task Scheduling   Load Balancing   Un-prevail Systematic Grouping  
Genetic Algorithm   Fuzzy System  
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