



RESEARCH ARTICLE

Genetic Algorithm Assisted Preventive Maintenance Scheduling for Web Servers

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Abstract— In this paper, A Preventive Maintenance Scheduling Problem of scheduling a set of Web servers located at centralized facility is addressed. The paper proposed a way of identifying an optimized solution for maintenance scheduling of the Web servers through Genetic algorithm. The performance parameter for denoting the capacity of Web servers is taken as requests/min. It is taken in to account that the net reserve of the installed servers must be greater than or equal to zero at any time slot of maintenance. The problem is formulated by developing chromosomes and fitness function. The Genetic algorithm is later tuned for varying number of chromosomes, generation and mutation rate to obtain the optimized maintenance schedule having minimum net reserve.

Key Terms: - Genetic Algorithm; Preventive maintenance; Web server; chromosomes; Artificial intelligence

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