Abstract

The paper presents the profit analysis of a two unit cold standby system with delayed repair of partially failed unit and better utilization of units. It is assumed that the system stops functioning only when both the units fail. The failure time distributions and delayed time distribution of each unit are assumed to be negative exponential with different parameters whereas the repair time distributions are taken to general. Formulas for various reliability indices of the system including availability, busy period analysis of the repairman, and profit function analysis by using the regenerative point technique are derived.

References

- Gupta, R., and Bansal, S., (1990), "Cost benefit analysis of two-unit cold standby system with the provision of rest to a unit." International journal of system science, 21, 1451-1462.

Index Terms

Computer Science

Applied Mathematics

Keywords

Redundancy; Standby system; Stochastic; Failure and Repair times; Correlation.