

A Study on Net Profit Associated with Queueing System Subject to Catastrophical Events

Authors : M. Reni Sagayaraj, S. Anand Gnana Selvam, R. Reynald Susainathan

Abstract : In this paper we study that the catastrophic events arrive independently at the service facility according to a Poisson process with rate λ . The nature of a catastrophic event is that upon its arrival at a service station, it destroys all the customers there waiting and in the service. We will derive the net profit associated with queueing system and obtain its probability of the busy period.

Keywords : queueing system, net-profit, busy period, catastrophical events

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