

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

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Abstract : In this paper we study that the catastrophical events arrive independently at the service facility according to a Poisson process with rate λ . The nature of a catastrophical 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

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020