A Measure for Time Dependent Queueing Problem with Service in Batches of Variable Size

P. C. Garg

Punjabi University

India

Abstract

This paper derives the time dependent solution of a single channel queueing system with service in batches of variable size. Inter arrival time and service time are exponentially distributed. Time dependent probabilities of exactly i arrivals and j departures are obtained explicitly by solving the difference equations recursively. Model of Pegden and Roshenshine is derived as a particular case.