Bayesian Prediction based on an Adaptive Type-II Progressive Censored Data from the Generalized Exponential Distribution

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 179
Number 46

Year of Publication: 2018

Authors:
M. M. Mohie El-Din, M. M. Amein, A. R. Shafay, S. Mohamed

10.5120/ijca2018917032

Abstract

In this paper, based on an observed adaptive Type-II progressively censored sample from the generalized exponential distribution, the problem of predicting the order statistics from a future unobserved sample from the same distribution is discussed. The description of the model of the adaptive Type-II progressively censored sample from the generalized exponential distribution is presented. Also, Markov chain Monte Carlo method is applied to construct the Bayesian prediction intervals of the order statistics from a future sample from the same distribution. Finally, results from simulation studies assessing the performance of our proposed method are included and then an illustrative example using real data set is presented for illustrating all the inferential procedures developed here.

References


**Index Terms**

Computer Science  Distributed Systems

**Keywords**

Adaptive Type-II progressive censored scheme, Bayesian prediction, Generalized exponential distribution, Markov chain Monte Carlo technique