

ABSTRACT

Mixture model of exponential and Rayleigh distribution is considered in the present study. The parameters of the mixture model are estimated through Classical and Bayesian method of estimation. In Classical method of estimation, Maximum Likelihood estimation method is used and the variances of the estimators are get by Fisher Information matrix. Bayes estimators along with their variances are attained using both informative prior and non- informative prior distributions. The squared error loss function is assumed to find the Bayes' estimators. A censored simulated data is obtained by mixture model and the comparison is made between the results provided by Classical method of estimation and Bayesian method of estimation. The results show that the Bayesian method of estimation provides precise and accurate estimates of parameter due to the use of prior information. The predictive intervals for elicitation of hyper parameters are also constructed.