A NEW ALPHA SKEW LAPLACE DISTRIBUTION : PROPERTIES AND ITS APPLICATIONS

S. Shah, P. J. Hazarika* and S. Chakraborty

Department of Statistics, Dibrugarh University, Dibrugarh - 786 004, India.
E-mail : parthajhazarika@gmail.com

Abstract : In this study by considering Balakrishnan mechanism a new form of alpha skew distribution is proposed and properties are investigated. The suitability of the proposed distribution has tested at the end with appropriate data fitting experiment and then comparing the values of Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) with the values of some other related distributions. Likelihood ratio test is carried out to discriminate between the nested model, namely, the Laplace and the proposed distributions.

Key words : Skew Distribution, Alpha-Skew Distribution, Bimodal Distribution, Alpha-Skew-Normal Distribution, Balakrishnan-Alpha-Skew-Normal Distribution