A NEW GENERALIZATION OF ISHITA DISTRIBUTION: PROPERTIES AND APPLICATIONS

Anwar Hassan, Showkat Ahmad Dar and Bilal Ahmad Para

Department of Statistics, University of Kashmir, Jammu and Kashmir, India

Department of Statistics, Government Degree College Boys Anantnag, Jammu and Kashmir, India

Email: anwar.hassan2007@gmail.com, darshowkat2429@gmail.com, parabilal@gmail.com

Abstract

The concept of weighted distributions can be employed in the development of proper models for lifetime data. In this paper, we introduce a new generalization of Ishita distribution called as Weighted Ishita Distribution (WID). The statistical properties of this distribution are derived and the model parameters are estimated by maximum likelihood estimation. Finally, an application to real data set is presented.

Keywords and phrases: Ishita Distribution; Weighting Technique; Structural Properties and Maximum Likelihood Estimation.

2010 Mathematics Subject Classification: 62H10, 62J12.