

Some Properties of Entropy for an Extended Exponential Distribution (EED) Based on Order Statistics

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Abstract—Residual and past residual entropy functions concatenated with uncertainty measurements are predominant factors in information theory. Many existing comparative analysis procedures are already asserted for determining the aging process of associated components like life testing problems and survival function. This paper focuses on proposing functions that are based upon the extended exponential distribution (EED). Existing past residual entropy function is examined on upper bounds of different order statistics and the results are analyzed for proposed Shannon’s entropy, entropy of order statistics, residual and past residual entropy functions.

Keywords: Entropy, Order Statistics, Past Entropy, Residual Entropy.