

ABSTRACT

APPROXIMATION OF GENERALIZED EXPONENTIAL DISTRIBUTION (GED) AND GENERALIZED LOG LOGISTICS DISTRIBUTION (GLLD) TO EXPONENTIAL DISTRIBUTION

By

Herlyanti

The Generalized Exponential Distribution (GED) has two parameters (α, λ), α as a shape parameter and λ as a scale parameter. Generalized log-logistic distribution (GLLD) has four parameters (α, β, m_1, m_2), with α is the location parameter, β is the scale parameter, and (m_1, m_2) is the shape parameter. The exponential distribution has parameter λ as parameter scale. The purpose of this study is to approximate the generalized exponential distribution and generalized log logistic distribution to the exponential distribution by using the moment generating functions and characteristic functions of these distributions. Based on the results obtained by the analytical and graphic using the software R 3.2.0, the exponential distribution can be approximated by a generalized exponential distribution and generalized log-logistic distribution by reparameterisasi on both the distribution of the moment generating function and characteristic function.

Keywords: Exponential Distribution, Generalized Exponential Distribution, Generalized Log-logistic Distribution, Moment Generating Functions, Characteristic Functions.