

ABSTRACT

APPROXIMATION OF F DISTRIBUTION WITH GENERALIZED LOG-LOGISTIC DISTRIBUTION

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Generalized Log-Logistic (GLL) Distribution is generalized from Log-Logistic Distribution with four parameters $(\alpha, \beta, m_1, m_2)$. The characteristics of GLL Distribution can be seen from the correlation of other distribution, particularly well-known distribution. By reparameterizing and transforming on parameters from GLL Distribution to F Distribution, it will be proven that there is a correlation between GLL Distribution and F Distribution.

The point of this research is to approach F Distribution using GLL Distribution with moment generating function. The conclusion of this research is that F Distribution can be approached by GLL Distribution using moment generating function from each of the distributions.

Keywords: F Distribution, Generalized Log-Logistic Distribution, MacLaurin Series, Gamma Function, Moment Generating Function.