

## ABSTRACT

### CHARACTERISTICS OF THE MOMENT GENERATING FUNCTION OF GENERALIZED GAMMA DISTRIBUTION

By

DINDA MEISILIA

In this paper, some characteristics of Generalized Gamma distribution and Gamma distribution as a special case of the generalized Gamma distribution are described. Generalized Gamma distribution ( $GG(\alpha, \gamma, m_1)$ ) is a continuous probability distribution with three parameters. GG distribution and Gamma distribution has the same domain for a non-negative  $x$ . In addition to the parameters and the domain, GG distribution has some characteristics such as probability density function, expected value, variance, and moment generating function. In the approximated GG distribution to the Gamma distribution through the moment generating function, used the Maclaurin series. This paper also presents a graph of the probability density function of GG distribution and Gamma distribution separately, for each of its parameters. In graphing, used the R version 3.0.1 program.

**Keywords:** *Gamma Distribution, Generalized Gamma Distribution, Maclaurin Series, Moment Generating Function.*