

## **Bayes Estimator for Exponential Distribution with Extension of Jeffery Prior Information**

**Hadeel Salim Al-Kutubi and Noor Akma Ibrahim**

*Institute for Mathematical Research, Universiti Putra Malaysia,*

*43400 UPM Serdang, Selangor, Malaysia*

*E-mail: hadeelkutubi@live.com*

### **ABSTRACT**

In this paper the extension of Jeffery prior information with new loss function for estimating the parameter of exponential distribution of life time is presented. Through simulation study the performance of this estimator was compared to the standard Bayes with Jeffery prior information with respect to the mean square error (MSE) and mean percentage error (MPE). We found the extension of Jeffery prior information gives the best estimator.

Keywords: Extension of Jeffery prior information, loss function, exponential distribution, Bayes method.