Abstract

The paper presents NHPP software reliability growth model exhibiting efficient debugging phenomenon. In efficient debugging, cumulative faults corrected more than the faults responsible for software failures. Proposed model incorporates time dependent exponential fault content function and I/D pattern of learning process. Parameters are estimated by LSE and goodness of fit is performed. Determination of MSE and R^2 indicates model is fit better to given dataset. Finally software reliability has been analyzed.

**Index Terms**

Computer Science  
Software Engineering

**Keywords**

Software Reliability  
Efficient Debugging  
NHPP Model  
Exponential Function.