

عنوان مقاله:

Bayes Interval Estimation on the Parameters of the Weibull Distribution for Complete and Censored Tests

محل انتشار:

ماهنامه بین المللی مهندسی، دوره 26، شماره 9 (سال: 1392)

تعداد صفحات اصل مقاله: 12

نویسندگان:

a. motaei - Department of Industrial Engineering, Sharif University of Technology, Tehran, Iran

s.t.a niaki - Department of Industrial Engineering, Sharif University of Technology, Tehran, Iran

n fard - Department of Mechanical and Industrial Engineering, Northeastern University, ۳۳۴ Snell Engineering Center,
۳۶۰ Huntington Avenue, Boston, MA ۰۲۱۱۵, USA

خلاصه مقاله:

A method for constructing confidence intervals on parameters of a continuous probability distribution is developed in this paper. The objective is to present a model for an uncertainty represented by parameters of a probability density function. As an application, confidence intervals for the two parameters of the Weibull distribution along with their joint confidence interval are derived. The model admits complete data, as well as censored data. The estimation accuracy of the proposed model is compared to those of the existing procedures by a numerical method. The validation analysis shows that the estimation accuracy of the proposed model lead to an encouraging conclusion. It is shown that improper use of available information in the data that affects the width of the confidence intervals obtained by the existing procedures. It does not affect the coverage of the proposed confidence interval method.

کلمات کلیدی:

Confidence Interval, Uncertainty, Sufficient Statistics, Weibull Distribution, Type-I Censoring, Type-II Censoring

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/254963>

