

ABSTRACT

The present invention discloses a product reliability analysis method and system. The method includes: obtaining a measured value of a performance parameter–related identification parameter of a product, where measurement of the identification parameter is non-destructive measurement; determining coefficients of a reliability analysis model of the product according to the measured value of the identification parameter, where the reliability analysis model includes a service life probability distribution model and a remaining service life prediction model; determining the service life probability distribution model according to the coefficients, and analyzing service life distribution of the product; and determining the remaining service life prediction model according to the coefficients, and predicting remaining service life of the product. According to the method or the system of the present invention, on one hand, accuracy of reliability analysis is improved, thus reducing a number of test samples and test costs; on the other hand, remaining service life of a product in use can be predicted, thus providing a basis for maintenance, replacement, and spare part decision for the product.

(Figure 1 accompanies the abstract)