

Repairable systems with general repair

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Abstract

The contribution deals with general repair models for repairable system. Various ways of modeling the impact of repairs on a system condition are examined. The most common is to assume the repairs impact the failure intensity following a virtual age process (of the general form) proposed by Kijima. Another option considers repairs performing the time-dependent scale transformation of the governing distribution function. Ultimately, repairs directly reducing system deterioration represented by cumulative hazard rate are taking into account. In the second part of the article preventive maintenance actions of repairable system are discussed.

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