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Analysis of Exponential Distribution under Step Stress Partially Accelerated Life Testing Plan Using Adaptive Type-I Hybrid Progressive Censoring Schemes with Competing Risks Data

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Abstract : In this article, we have estimated the parameters for the failure times of units based on the sampling technique adaptive type-I progressive hybrid censoring under the step-stress partially accelerated life tests for competing risk. The failure times of the units are assumed to follow an exponential distribution. Maximum likelihood estimation technique is used to estimate the unknown parameters of the distribution and tampered coefficient. Confidence interval also obtained for the parameters. A simulation study is performed by using Monte Carlo Simulation method to check the authenticity of the model and its assumptions.

Keywords : adaptive type-I hybrid progressive censoring, competing risks, exponential distribution, simulation, step-stress partially accelerated life tests
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