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11.Title	Bayesian estimation of system reliability using monte carlo technique of simulation
Conference	International Conference on Statistics and its Applications in Management (ICSAIM), IIM, Kozhikode.
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Abstract	In the present paper ,Monte-Carlo method is applied for Bayesian estimation of reliability of system of n s-independent two-state components. Time-to-failure for each component is assumed to have Weibull distribution with different parameters for each component. The shape parameter for each component is assumed to be known with scale parameter distributed with a priori Rayleigh distribution with known parameters. Monte-Carlo simulation is used to generate the random deviates for the scale parameters and replicates for times-to-failure for each combination of scale parameter values are generated, Reliability is estimated as a function of time. Further, for the Bayes estimation of reliability we assume Poisson distribution with a priori time-shifted Rayleigh distribution. Finally, the robustness in the Bayesian estimation problem relative to changes in the assigned priori distribution is considered. We approximate the Bayes estimator of the reliability. The Bayes risk with respect to the priori time-shifted beta distribution is considered and at last approximate robustness of the Bayes estimator of reliability is examined with respect to the Uniform priori. We have compared the maximum likelihood estimator of reliability with the Bayes estimator with prior uniform distribution.