PROCESS CAPABILITY INDEX FOR ZERO-INFLATED POISSON PROCESS

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Abstract

Process capability indices for continuous as well as discrete processes have been reported by several researchers. If count process has Poisson distribution with inflation at zero and one proposes capability index based on usual Poisson distribution (ignoring inflation) then the status of the process is underestimated. In this article process capability index for zero-inflated Poisson process is proposed. An estimator based on maximum likelihood estimator is provided. Simulation study is carried out to study the performance of the proposed estimator. For illustration a real life example is provided.

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