



CLOSED FORM FORMULAS OF AVERAGE RUN LENGTH OF MOVING AVERAGE CONTROL CHART FOR NONCONFORMING FOR ZERO-INFLATED PROCESS

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Abstract

The objective of this research is to study the performance of control charts for quickest detection of change in means with a moving average control chart (MA). The main characteristics of a control chart are the average run length (ARL_0) (mean of false alarm times) and the average delay time (ARL_1) (mean delay of true alarm times). The ARL_0 should be sufficiently large while the process is still in-control and the ARL_1 should be small when the process goes out-of-control. Explicit formulas of ARL_0 and ARL_1 for MA chart are presented when the probability of observing a defective product follows a zero-

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