

An Algorithm for Implementing the EWMA Control Chart Using Dynamic Bayesian Networks

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Abstract

This paper presents a modeling method of the EWMA control chart by a Dynamic Bayesian Network (DBN). The construction method of the network is proposed, and the algorithm for calculating the conditional probability table (CPT) is detailed. A simulation example illustrates the method and show the equivalence between these different tools.

Keywords: Control chart, Detection, Dynamic Bayesian Network, EWMA control chart.

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