A Study of Applying Genetic Algorithm to the Economic Design of X-bar Control Charts

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ABSTRACT

Duncan is the pioneer of the economic design of control charts. One of the main difficulties issues in economic design is the computation of the design parameters. Several different methods have been proposed. In this research, an algorithm of Genetic method is employed to determine the parameters of an X-bar control chart in Duncan's model. Numerical examples show that this is an accurate and reliable optimum values for the design parameters.

Keywords: Economic design; X-bar control chart; Genetic Algorithm

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