

An Introduction and Discussion on Two-Stage Control Process

張欣民
成功大學統計學系

Abstract

We present in this talk a method, using finite Markov chains, to obtain the run-length properties of a two-stage control process. The method furnishes the obtaining of the distribution of waiting time to signal which gives additional insight into the design and performance of a control chart when the chart is used to monitor a two-stage control process featured by a warning zone and when a departure from the null assumption can be clearly defined. For an outlined process inspection scheme assisted by a fast algorithm, numerical examples will be used to demonstrate chart performance and to verify our theoretical derivations.