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RELIABILITY: THE OTHER DIMENSION OF QUALITY

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ABSTRACT

During the past twenty years, manufacturing industries, particularly in the United States, have gone through a revolution in the use of statistical methods for product quality. Tools for process monitoring and, particularly experimental design, are much more commonly used today to maintain and improve product quality. A natural extension of the revolution in product quality is to turn focus to product reliability, which is defined as "quality over time." This has given rise to programs like Design for Six Sigma.

In this paper we discuss the relationship between engineering quality and reliability and outline the role of statistics and statisticians in the field of reliability. We provide a brief introduction to the statistical tools used in engineering reliability and make some predictions for the future of statistics in engineering reliability.

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