

Concurrent Engineering Challenges and Resolution Mechanisms from Quality Perspectives

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Abstract : In modern technical engineering applications, quality is defined in two ways. The first one is that quality is the parameter that measures a product or service's characteristics to meet and satisfy the pre-stated or fundamental needs (reliability, durability, serviceability). The second one is the quality of a product or service free of any defect or deficiencies. The American Society for Quality (ASQ) describes quality as a pursuit of optimal solutions to confirm successes and fulfillment to be accountable for the product or service's requirements and expectations. This article focuses on quality engineering tools in modern industrial applications. Quality engineering is a field of engineering that deals with the principles, techniques, models, and applications of the product or service to guarantee quality. Including the entire activities to analyze the product's design and development, quality engineering emphasizes how to make sure that products and services are designed and developed to meet consumers' requirements. This episode acquaints with quality tools such as quality systems, auditing, product design, and process control. The finding presents thoughts that aim to improve quality engineering proficiency and effectiveness by introducing essential quality techniques and tools in some selected industries.

Keywords : essential quality tools, quality systems and models, quality management systems, and quality assurance

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