

Impact of Design Simplification Analysis (DSA) on Automotive Product Development

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Abstract

Design Simplification Analysis (DSA) has been successfully used in the US Automotive Industry for over two decades. Due to global competition in vehicle design and manufacturing, it became extremely important for the US automotive industry to utilize more cost effective, reliable and highly productive techniques. In this paper, the importance of design simplification analysis (DSA) of automotive products is discussed. It is also demonstrated that reducing complexity of products could lead to cost-effective, reliable, simple and faster to assemble / disassemble and service products. Benefits of utilizing DS approach in new product development, impact of DSA on product cost, performance, reliability, quality, life cycle and delivery is also discussed. Guidelines and criteria for effective utilization of DSA are also discussed.

Keywords

Design, simplification, analysis, methodology and product development