

# Engineering Design Reliability Applications: For the Aerospace, Automotive and Ship Industries

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- Demonstrates and quantifies the benefits of reliability design and probabilistic approaches on real-life engineering systems
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In the current, increasingly aggressive business environment, crucial decisions about product design often involve significant uncertainty. Highlighting the competitive advantage available from using risk-based reliability design, *Engineering Design Reliability Applications: For the Aerospace, Automotive, and Ship Industries* provides an overview of how to apply probabilistic approaches and reliability methods to practical engineering problems using real life engineering applications. A one-step resource, the book demonstrates the latest technology, how others have used it to increase their competitiveness, and how you can use it to do the same.

The book makes the case for accurate assessment of the reliability of engineering systems, simple, complex, or large-scale. It presents two computer programs for reliability analysis and demonstrates these programs on aircraft engines, structures used for testing explosives, medical and automotive systems. The focus then shifts to aircraft and space systems, including lap joints, gas turbines, and actively controlled space structures. The editors provide analytical tools for reliability analysis, design optimization, and sensitivity analysis of automotive systems.

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