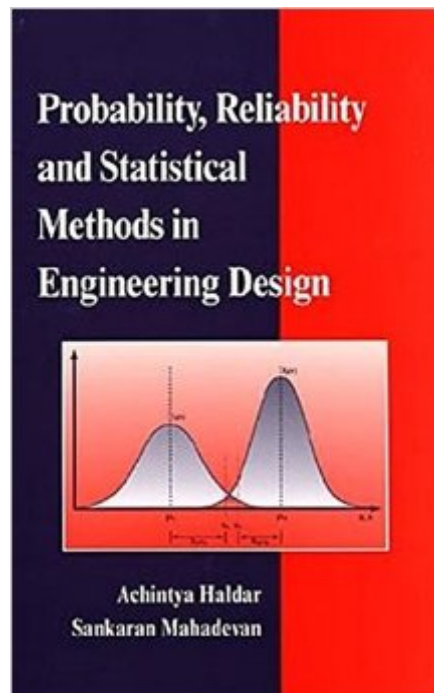


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# Probability, Reliability, And Statistical Methods In Engineering Design



## Synopsis

Learn the tools to assess product reliability! Haldar and Mahadevan crystallize the research and experience of the last few decades into the most up-to-date book on risk-based design concepts in engineering available. The fundamentals of reliability and statistics necessary for risk-based engineering analysis and design are clearly presented. And with the help of many practical examples integrated throughout the text, the material is made very relevant to today's practice. Key Features \* Covers all the fundamental concepts and mathematical skills needed to conduct reliability assessments. \* Presents the most widely-used reliability assessment methods. \* Concepts that are required for the implementation of risk-based design in practical problems are developed gradually. \* Both risk-based and deterministic design concepts are included to show the transition from traditional to modern design practice.

## Book Information

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## Customer Reviews

As a reliability engineer, I do a lot of probabilistic risk analysis and reliability based design for large systems like gas turbines, etc. From both a theoretical and applied perspective, this is an excellent text for those getting into this subject. The book is written in a pleasing style, in which complex ideas are introduced in a manner than anyone (with no prior statistical training) can understand. It is a small book that packs a lot of information in it, and the companion volume by the same authors is another excellent text on the same topic. I particularly liked their treatment of LRFD methods and the FORM algorithms. On the negative side, I found the algorithms described in Madsen's "Methods

of structural safety" easier to implement. The authors might want to incorporate some of those methods in their next edition. They could also discuss approaches to model time-dependent reliability, apart from including empirical probability distributions in design. Overall, I have read most of the texts out there in reliability-based design and this is clearly the best. It's an expensive book, but well worth the money !

This book is among one of the best books in this subject. It captures all different aspects of probability, reliability and statistical methods in engineering design in one book with clear details and examples. The latest advancements in this area are also included in this book. I do recommend it for any engineering student taking courses in this area.

Excellent text with an abundance of practical examples which demonstrate and apply the material of the text. Very interesting and concise.

Expensive to buy. Does not contain everything, like more advanced topics of reliability design, such as Monte Carlo, Fault Tree, Structural Reliability etc etc. Has good amount of examples.

Great explanations for the theories behind reliability methods used within research for engineering design today. I have used the book almost religiously in my studies.

The book contents contain simply too much material in too short of a book. Every other explanation of formulas causes more confusion rather than simplistic explanation. It should definitely be broken down and expanded into a longer more simplistic text form.

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