

NEW! Engineering Design Reliability Handbook

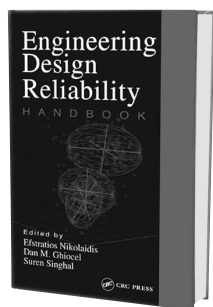
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BUILD RELIABILITY INTO EVERY PROJECT



Researchers in the engineering industry and academia are making important advances on reliability-based design and modeling of uncertainty when data is limited. Nondeterministic approaches have enabled industries to save billions by reducing design and warranty costs and by improving quality.

Considering the lack of comprehensive and definitive presentations on the subject, **Engineering Design Reliability Handbook** is a valuable addition to the reliability literature. It

presents the perspectives of experts from the industry, national labs, and academia on non-deterministic approaches including probabilistic, interval and fuzzy sets-based methods, generalized information theory, Dempster-Shaffer evidence theory, and robust reliability. It also presents recent advances in all important fields of reliability design including modeling of uncertainty, reliability assessment of both static and dynamic components and systems, design decision making in the face of uncertainty, and reliability validation. The editors and the authors also discuss documented success stories and quantify the benefits of these approaches.

With contributions from a team of respected international authors and the guidance of esteemed editors, this handbook is a distinctive addition to the acclaimed line of handbooks from CRC Press.

FEATURES

- ▶ Presents perspectives of experts from national labs, industry and academia on non-deterministic approaches and documented success stories to help you identify areas of future research and realize the benefits of non-deterministic approaches for your organization.
- ▶ Considers both probabilistic and non-probabilistic approaches and demonstrates their benefits to real life applications, giving you a suite of tools to manage uncertainty in research and product design with significant cost savings and quality improvement.
- ▶ Considers the issue of modeling uncertainty when information is scarce and imprecise, and provides you with a good understanding of different types of uncertainties and much needed tools to model uncertainty in real life problems.



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Contents

Part I: Status and Future of Nondeterministic

Approaches (NDAs)

Brief Overview of the Handbook, *Efstratios Nikolaidis and Dan M. Ghiocel*
Perspectives on Nondeterministic Approaches, *Ahmed K. Noor*

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Research Perspective in Stochastic Mechanics, *Mircea Grigoriu*

A Research Perspective, *David G. Robinson*

Part II: Nondeterministic Modeling: Critical Issues and Recent Advances

Types of Uncertainty in Design Decision Making, *Efstratios Nikolaidis*

Generalized Information Theory for Engineering Modeling and Simulation, *Cliff Joslyn and Jane M. Booker*

Evidence Theory for Engineering Applications, *William L. Oberkampf and Jon C. Helton*

Info-Gap Decision Theory for Engineering Design: Or Why "Good" Is Preferable to "Best", *Yakov Ben-Haim*

Interval Methods for Reliable Computing, *Rafi L. Muhanna and Robert L. Mullen*

Expert Knowledge in Reliability Characterization: A Rigorous Approach to Eliciting, Documenting, and Analyzing Expert Knowledge, *Jane M. Booker and Laura A. McNamara*

First- and Second-Order Reliability Methods, *Armen Der Kiureghian*
System Reliability, *Palle Thoft-Christensen*

Quantum Physics-Based Probability Models with Applications to Reliability Analysis, *Erik Vanmarcke*

Probabilistic Analysis of Dynamic Systems, *Efstratios Nikolaidis*

Time-Variant Reliability, *Robert E. Melchers and Andre T. Beck*

Response Surfaces for Reliability Assessment, *Christian Bucher and Michael Macke*

Stochastic Simulation Methods for Engineering Predictions, *Dan M. Ghiocel*

see reverse for continuation of contents and ordering information

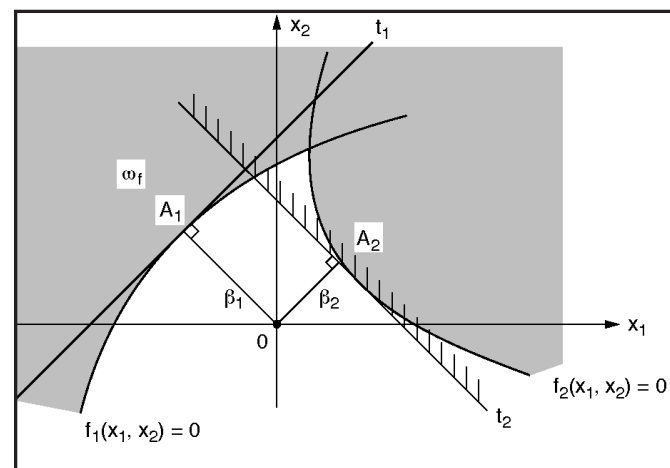


Figure 15.13 Illustration of series system with two failure elements

Contents continued

Projection Schemes in Stochastic Finite Element Analysis, *Prasanth B. Nair*

Bayesian Modeling and Updating, *Costas Papadimitriou and Lambros S. Katafygiotis*

Utility Methods in Engineering Design, *Michael J. Scott*

Reliability-Based Optimization of Civil and Aerospace Structural Systems, *Dan M. Frangopol and Kurt Maute*

Accelerated Life Testing for Reliability Validation, *Dimitri B. Kececioglu*

The Role of Statistical Testing in NDA, *Eric P. Fox*

Reliability Testing and Estimation Using Variance-Reduction Techniques, *David Mease, Vijayan N. Nair, and Agus Sudjianto*

Part III: Applications

Reliability Assessment of Aircraft Structure Joints under Corrosion-Fatigue Damage, *Dan M. Ghiocel and Eric J. Tuegel*

Uncertainty in Aeroelasticity Analysis, Design, and Testing, *Chris L. Pettit*

Selected Topics in Probabilistic Gas Turbine Engine Turbomachinery Design, *James A. Griffiths and Jonathan A. Tschopp*

Practical Reliability-Based Design Optimization Strategy for Structural Design, *Tony Y. Torng*

Applications of Reliability Assessment, *Ben H. Thacker, Mike P. Enright, Daniel P. Nicoletta, David S. Riha, Luc J. Huyse, Chris J. Waldhart, and Simeon H.K. Fitch*

Efficient Time-Variant Reliability Methods in Load Space, *Sviatoslav A. Timashev*

Applications of Reliability-Based Design Optimization, *Robert H. Sues, Youngwon Shin, and (Justin) Y.-T. Wu*

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Risk Management of Composite Structures, *Frank Abdi, Tina Castillo, and Edward Shroyer*

Index

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