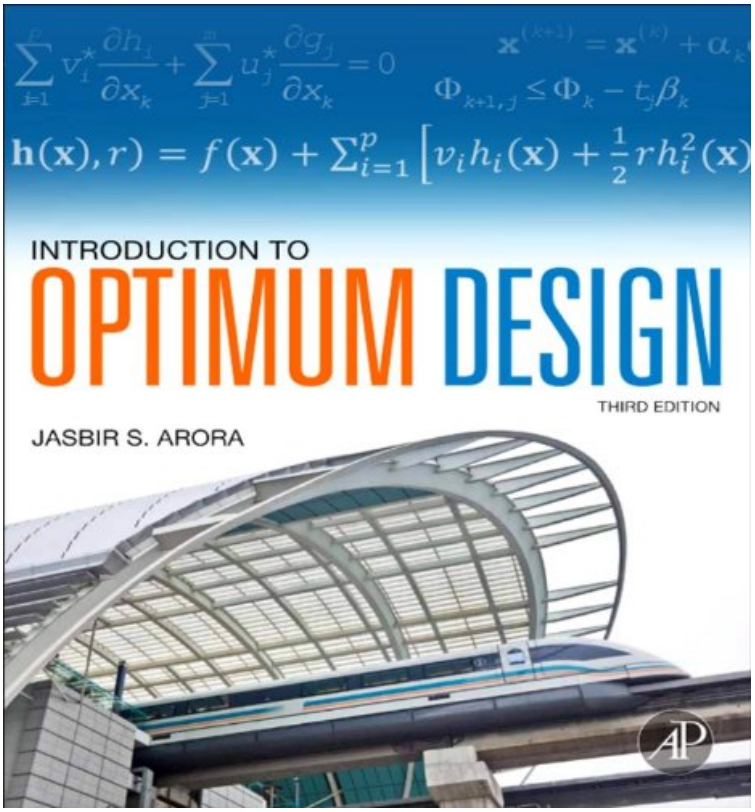
Introduction to Optimum Design



Par Jasbir Arora
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(Ebook free) Introduction to Optimum Design

Par Jasbir Arora : Introduction to Optimum Design before purchasing it in order to gage whether or not it would be worth my time, and all praised Introduction to Optimum Design:

Description :

Prsentation de l'diteurIntroduction to Optimum Design, ThirdEditiondescribes an organized approach to engineering design optimization in a rigorous yet simplified manner. It illustrates various concepts and procedures with simple examples and demonstrates their applicability to engineering design problems. Formulation of a design problem as an optimization problem is emphasized and illustrated throughout the text. Excel and MATLAB are featured as learning and teaching aids.Basic concepts of optimality conditions and numerical methods are described with simple and practical examples, making the material highly teachable and learnableIncludes applications of optimization methods for structural, mechanical, aerospace, and industrial engineering problemsIntroduction to MATLAB Optimization ToolboxPractical design examples introduce students to the use of optimization methods early in the bookNew example problems throughout the text are enhanced with detailed illustrationsOptimum design with Excel Solver has been expanded into a full chapterNew chapter on several advanced optimum design topics serves the needs of instructors who teach more advanced coursesRevue de presse"I feel that Dr. Arora presented significant amounts of material in a clear and straightforward manner. The book is definitely a reference that practitioners would like to have and depend upon, especially with the plethora of examples and applications. As an educator, Dr. Aroras book also has a tremendous number of problems at the end of the chapters and examples that I would try to use in class...the book is a solid introduction to optimization algorithms." - Georges Fadel, Associate Editor, Journal of Mechanical Design "Aroras introduction of a much-anticipated

second edition of Introduction to Optimum Design will not only satisfy established users of his well-received first edition, but moreover, significant updates, supplementary material, and fine-tuning of the pedagogical aspects of the presentation will certainly broaden its appealamong some of the distinguishing characteristics of Aroras book are its adaptability to audiences with diverse backgrounds, as well as the extent to which it makes the topic clear and approachable...The book would also be excellent as a self-study reference for the practicing engineerIn summary, when considering the pedagogical refinements of the book, the expanded and updated software examples, as well as the extended survey of emerging computational methods, Aroras Introduction to Optimum Design, 2nd Ed., furthers its goal ofdescribing engineering design optimization in a rigorous yet simplified manner which is both highly accessible to and useful for a wide audience." - David F. Thompson, Graduate Program Director, University of Cincinnati"I have used several optmization books over the past 10 years to support my various graduate optimization courses. Of all the books that I have used, I prefer Dr. Aroras Introduction to Optimum Design, 2nd EdThe strength of this book lies in his attention to detail using numeric exercises to demonstrate the numerical processes used in the various optimization methods. I particularly like his choice of nomenclature throughout the book, as it conforms to the standard symbols and function names used in classical optimization literature. The application exercises presented cover a broad range in technologies, which makes it a good textbook for any engineering discipline." - Tom R. Mincer, California State University"...this book is well written and covers just about every topic that one needs to know about the optimum design process. It includes a good balance of theory and application. The book will therefore be appealing to all users." - Practice Periodical On Structural Design and Construction - ASCE, Nov. 2005Prsentation de l'diteurIntroduction to Optimum Design, ThirdEditiondescribes an organized approach to engineering design optimization in a rigorous yet simplified manner. It illustrates various concepts and procedures with simple examples and demonstrates their applicability to engineering design problems. Formulation of a design problem as an optimization problem is emphasized and illustrated throughout the text. Excel and MATLAB are featured as learning and teaching aids.Basic concepts of optimality conditions and numerical methods are described with simple and practical examples, making the material highly teachable and learnableIncludes applications of optimization methods for structural, mechanical, aerospace, and industrial engineering problemsIntroduction to MATLAB Optimization ToolboxPractical design examples introduce students to the use of optimization methods early in the bookNew example problems throughout the text are enhanced with detailed illustrationsOptimum design with Excel Solver has been expanded into a full chapterNew chapter on several advanced optimum design topics serves the needs of instructors who teach more advanced courses