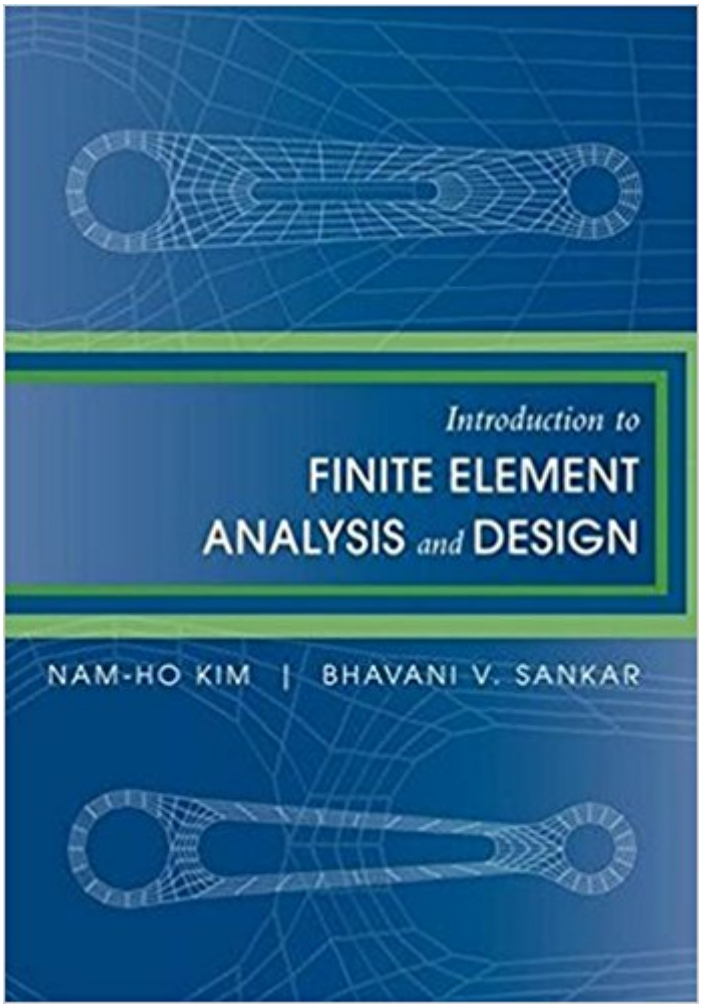
Introduction To Finite Element Analysis And Design



Synopsis

Finite Element Method (FEM) is one of the numerical methods of solving differential equations that describe many engineering problems. This new book covers the basic theory of FEM and includes appendices on each of the main FEA programs as reference. It introduces the concepts so that engineers can use the method efficiently and interpret the results properly. They'll learn about one-dimensional finite elements, including truss and beam elements, as well as two and three dimensional finite elements. Numerous examples are also included using ANSYS, ABAQUS, NASTRAN, Pro/Engineer, and I-DEAS. This approach will help engineers develop a thorough understanding of the theory behind FEM as well as its application.

Book Information

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Customer Reviews

This is a great text for an introductory course for FEA. There seemed to be a few numerical errors or typos in some of the examples, but other than that I have no real complaints about the book. Used it for an FEA course this semester and it was straight forward to follow along with.

This is an excellently written textbook. I took a finite element course that the author Dr. Kim taught and he used this textbook. I enjoyed how the book used examples to illustrate the concepts in each chapter.

Very useful books.

A+. Thanks.

too expensive for what it has.

A++++

This book starts FEA from the very scratch. It is good for an undergraduate course and can be used as a quick review for graduate level. The chapters are very well organized. Every single procedures are illustrated clearly followed by good examples. There are several software package including ANSYS and MATLAB at the end of the book with explanation on how to do some of the chapter exercises and projects. The book level goes as far as to teach you how to optimize a design like a torque arm structure using FAE (that's what you see on the cover page). As a student who have read each single pages and lines of this book and did the exercises, I have found several typos which could be misleading if I was not familiar with concepts. All in all, the contents are good, BUT, BUT, BUT it is very expensive for what you get (around 90$) AND it is VERY HARD to use. They have printed this 420 pages book on very thin papers (like onion skin) which makes it extremely hard to use. There is also no index at the end. Thanks to the authors for the good job.- Ramin Shamshiri, Dec.2009, Gainesville.

Love this product. just what I was looking for at a reasonable price. Delivery was very fast. i have bought one before, good product with high quality. would purchase again. helpful.

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