Concepts And Applications Of Finite Element Analysis, 4th Edition

CONCEPTS AND APPLICATIONS OF FINITE ELEMENT ANALYSIS

FOURTH EDITION

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Synopsis
This book has been thoroughly revised and updated to reflect developments since the third edition, with an emphasis on structural mechanics. Coverage is up-to-date without making the treatment highly specialized and mathematically difficult. Basic theory is clearly explained to the reader, while advanced techniques are left to thousands of references available, which are cited in the text.

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Customer Reviews
I am a graduate student of solid mechanics and I have read quite a few books on FEA. Of all the textbooks I have read-this is clearly the worst. The authors don't spend any time to make the material coherent and organized. They seem to have published this book just for the sake of establishing their names in the field. It is basically a collection of research papers on the subject. The worst part of the book is that the authors use excessive verbiage to describe extremely important concepts with little or no mathematics. This leaves the readers confused and disoriented. This book is not for those looking for an introductory text and is useless to even those experienced in the field. Avoid this book.

The comments left are interesting in that all the people teaching from it find it useful, and all the students find it frustrating...there is a trend here! I agree that the explanations are great in detail and the content practical, but at a graduate level with minimal support from the professor and no TA available, not having examples or solutions (to the odds or evens at the very least) is infuriating.
After spending close to $100 for this text, I had to go out to buy another with some problems to make it through my course. Two stars for readability, will pile the other three onto the review for my other text. If a professor recommends this book for his course, my suggestion would be to go talk to some fellow students who have already taken the course to be sure you know what you are signing up for!

As a graduate mechanical engineering student who has taken a few FEA courses and worked in industry for 5 years performing finite element analysis, I’m absolutely disgusted with this book. This book was used for an 'Intro to FEA' graduate course I recently took. It provides almost no examples and has a lack of coherent, methodical process in the presentation of equations. The ordering of the book was not in typical fashion of how FEA is taught. Theory is great, but without examples, students are not going to be able to apply the theory well. I have never gotten rid of an engineering book including undergraduate and graduate course textbooks. This is the first book I’ve had to sell, that should tell you a lot. I will go back to referencing my undergraduate and other graduate FEA book I have as I did throughout most of the course since this book was useless. As someone else stated, the verbiage in this book is terrible, it’s presented so over-the-top. The role of a textbook is to break down complex topics into useable information, not to over-complicate as this book has done so well. Avoid this book or any class that uses this book because you will basically not have a book to refer to.

This book was used to ‘introduce’ us to finite element analysis. To say the least, the book is very hard to follow. For an undergraduate text book, I don’t recommend it at all. The problems are very difficult and assume you have a lot of knowledge on other subjects. Also there are close to no examples. This would be a great book for graduate classes or those seriously interested in the theory, but not for the intro introductory class, unless you have a super great professor. Because of my bad experience with the book, and how I found it difficult to grasp, I give it only two stars.

I would recommend this book for fellow engineers trying to get a good background on the field of finite element analysis. I also have been looking for anyone who might have an answer CD for this book. As someone else mentioned, the cd is hard to come by. I have been wanting to work some more of the homework problems but I don’t know if I am doing them correctly. If anyone might know where I could get one, could you contact me at finite_element_30@hotmail.com. Thank you very much. Ryan Mumm
This book gives a very good explanation in finite element especially for engineer. Its mathematics is simple and to the point. A very good book for the starter in finite element. But the solution is separate from this book, it is in CD and it is difficult to get the CD. If this book can contain both in one book, it will be great.

This book covers most of the essential topics in finite element method. Various concepts of the method are well explained in detail, and many practical topics useful for practitioners are presented in this book. I am teaching the finite element method using this book at a graduate course. It is an excellent text book for both students and lecturers. Well organized and abundant contents!

I really tried to learn the finite element method by reading this book in great detail and is why I bought this book for an introduction Finite Element class. The organization and notation of symbols of the book was very odd, and therefore made it hard to read. Rather than talking about the theory first, the authors first state the equations, and then talk about "remarks" on the equations and underlying theory. The book contains very easy and introductory examples and problems, not practical examples that would help in the computer implementation of finite elements. For example, the book does not contain any examples on how to compute the stresses and strains from interconnected finite elements (which would help greatly when you want to write your own finite element program). Overall, a very confusing and brief presentation of the topics. I would not recommend this book.

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