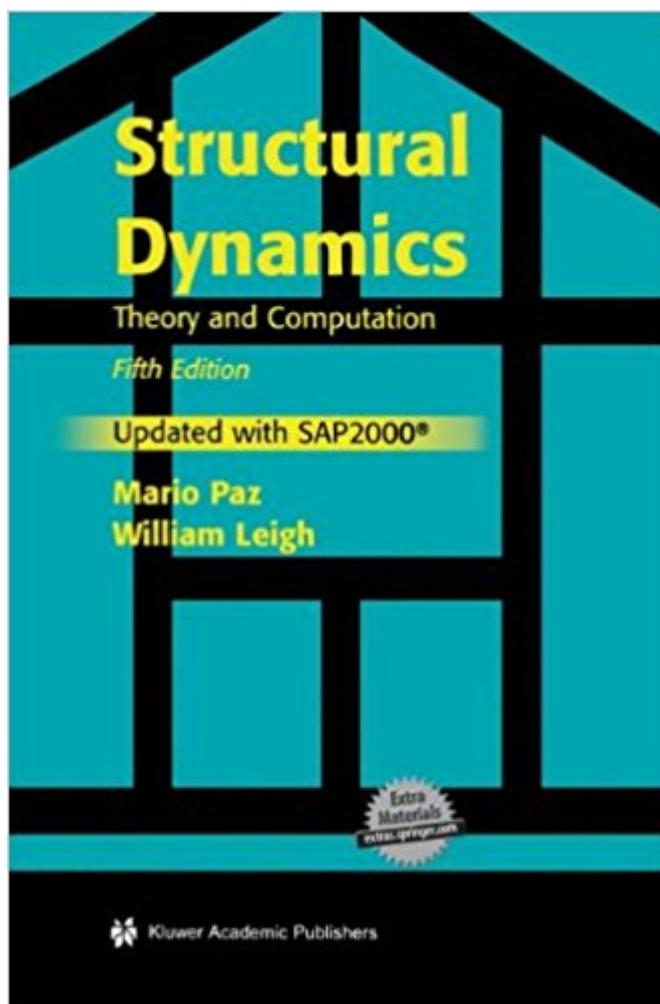The book was found

Structural Dynamics: Theory And Computation

Synopsis

solution of structural dynamics problems is introduced in this new edition. This program was selected from among the various professional programs available because of its capability in solving complex problems in structures as well as its wide use in professional practice by structural engineers. SAP2000 includes routines for the analysis and design of structures with linear or nonlinear behavior subjected to static or dynamics loads; (material non-linearity or large displacements non-linearities) and may be used most efficiently in the microcomputer. The larger versions of SAP2000 have the capability for the analysis of structures modeled with virtually any large number of nodes. This new fifth edition of the book uses, almost exclusively, the introductory version of SAP2000 which has a capability limited to 25 nodes or 25 elements. The set of educational programs in Structural Dynamics includes programs to determine the response in the time domain or in the frequency domain using the FFT (Fast Fourier Transform) of structures modeled as a single oscillator. Also included is a program to determine the response of an inelastic system with elastoplastic behavior, and another program for the development of seismic response spectral charts.

Book Information

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Customer Reviews

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"The Fifth Edition of Structural Dynamics: Theory and Computation is the complete and

comprehensive text in the field. It presents modern methods of analysis and techniques adaptable to computer programming clearly and easily. The book is ideal as a text for advanced undergraduates or graduate students taking a first course in structural dynamics. It is arranged in such a way that it can be used for a one- or two-semester course, or span the undergraduate and graduate levels. In addition, this text will serve the practicing engineer as a primary reference.The text differs from the standard approach of other presentations in which topics are ordered by their mathematical complexity. This text is organized by the type of structural modeling. The author simplifies the subject by presenting a single degree-of-freedom system in the first chapters, then moves to systems with many degrees-of-freedom in the following chapters. Finally, the text moves to applications of the first chapters and special topics in structural dynamics.New in this Edition:Problems reworked for SAP2000Ã Â®.Step-by-step examples of how to use SAP2000Ã Â® for every application of structural dynamics.Inclusion of companion Web site (extras.springer.com/2004) with three learning aids: SAP2000Ã Â® student version; source code for the authorÃ¢â ¬â„¢s educational programs in structural dynamics, so that the results of changed parameters can be seen step-by-step; and the compiler (executable files) for the authorÃ¢â ¬â„¢s educational programs.Three earthquake engineering chapters updated to the latest ICCÃ Â® building codes.Materials rearranged so that theory and dynamic analysis precede applications and special topics, facilitating using the book sequentially.Complete instructions provided to advanced topics as foundation for further study.This text is essential for civil engineering students. Professional civil engineers will find it an ideal reference." Ã Â Ã Â

The material is well structured and the book is written in a clear and concise manner that's why I give five stars to the author. But I am really disappointed because I do believe that is unacceptable nowadays to allow for printing a book with such a poor quality of sketches/pictures. I think that most of them are scanned from previous material, and unfortunately it turned out that the scanning equipment was too sophisticated for author's assistants. So, I rate the publisher with just one star! - Please note that my comment refers to the fifth edition.

This book will take manic, uncontrollable dumps all over your dreams of learning structural dynamics. There very well may be a mistake on every single page. I've yet to test this out, because I couldn't make it past chapter 8 without losing my vision trying to see their figures that look like someone took a picture on a 2003 camera phone, imported it to ms paint, reduced the resolution by half, printed it out, scanned it back onto a computer, then print it out again at whatever place was

dumb enough to decide to publish this book.

This is an excellent book for beginners but doesn't have too much detail on the math part I believe. Still great book to understand the concept.

Nice book

great book

(Re: 5th Edition) The principles of dynamics are timeless. In this regard, the book is excellent. Each chapter tackles a specific topic, develops it, and stays on topic. Dynamics can be difficult to process for a student.There are many issues in this edition which can be improved with a revision.1. Chapter 24 discusses the UBC 97. That building code was replaced with IBC 2003... which was replaced with IBC 2006... then 2009... then IBC 2012. Four code changes behind is unforgivable in engineering. The methods of the UBC differ greatly from the IBC. This is a compound problem. However, chapter 25 covers the IBC 2000, so there's that.2. The book introduces the student to SAP2000. Honestly, I never heard of this analysis software before this book. More well known are RISA and RAM Advanse.3. Some problems have incorrect answers. Some equations have small errors. Some graphics look like copies of copies of copies. The variables are illegible due to the ink bleeding the letters into Rorschach blots. The binding on my edition was so dry, it broke after a week.In short: The material and content are better than adequate. But, a revision is needed.

[A review of the 5th Edition 2006.]Paz gives a comprehensive explanation of his subject. Suitable to a reader at perhaps the second or third undergraduate year, and who has had some calculus and linear algebra. A substantial portion of the text involves solving linear systems of equations, to find eigenvalues and eigenvectors. And for this, the maths background is essential.What distinguishes the book from many older texts is the intensive use of computers to solve equations. This permits the tackling of harder problems, that are amenable only to numerical solutions.Also, if you already use some other numerical package, like Maple or Mathematica, then you can ignore the binaries on the enclosed CD, and just recode.

This book is wonderfull. I am a beginner in the subject. The book is easy to understand and gives an excellent "feel" for the subject. I read Chopra before and many times I had to reread to folow the

"red line" and not get lost in "research" like proofs. Chopra is good too, but after this book to get a little further.The programs are a real bonus to practice, and to see the programming steps clarifies the matter even more.I can't belive there are people commenting on the "look" when the "content" is so good. I thank the author for saving me from frustration and writing the book as for "self study".

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