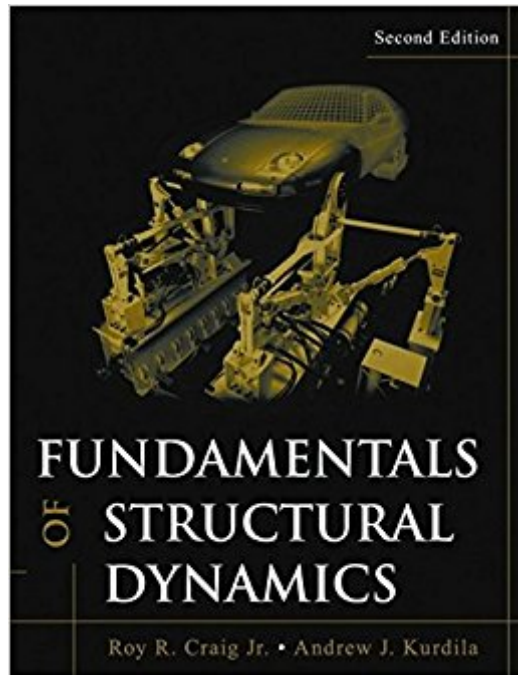




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# Fundamentals Of Structural Dynamics



## Synopsis

From theory and fundamentals to the latest advances in computational and experimental modal analysis, this is the definitive, updated reference on structural dynamics. This edition updates Professor Craig's classic introduction to structural dynamics, which has been an invaluable resource for practicing engineers and a textbook for undergraduate and graduate courses in vibrations and/or structural dynamics. Along with comprehensive coverage of structural dynamics fundamentals, finite-element-based computational methods, and dynamic testing methods, this Second Edition includes new and expanded coverage of computational methods, as well as introductions to more advanced topics, including experimental modal analysis and "active structures." With a systematic approach, it presents solution techniques that apply to various engineering disciplines. It discusses single degree-of-freedom (SDOF) systems, multiple degrees-of-freedom (MDOF) systems, and continuous systems in depth; and includes numeric evaluation of modes and frequency of MDOF systems; direct integration methods for dynamic response of SDOF systems and MDOF systems; and component mode synthesis. Numerous illustrative examples help engineers apply the techniques and methods to challenges they face in the real world. MATLAB(r) is extensively used throughout the book, and many of the .m-files are made available on the book's Web site. Fundamentals of Structural Dynamics, Second Edition is an indispensable reference and "refresher course" for engineering professionals; and a textbook for seniors or graduate students in mechanical engineering, civil engineering, engineering mechanics, or aerospace engineering.

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ROY R. CRAIG JR., PHD, is Professor Emeritus of Aerospace Engineering and Engineering Mechanics at The University of Texas at Austin. He has received numerous teaching awards and has worked in industry at Boeing, NASA, and Exxon Production Research Corporation, among others. ANDREW J. KURDILA, PHD, is the W. Martin Johnson Professor of Mechanical Engineering at the Virginia Polytechnic Institute and State University. His current research focuses on structural dynamics, dynamic systems theory, control theory, and computational mechanics.

This book is easy to read and provides a lot of useful examples. The concepts that are harder to grasp have in depth examples that clarify the process. The problems provided at the end of each chapter are a good mixture of applicable and conceptual. This is a great book for understanding vibrations as a whole. In terms of the condition of the book, it was exactly as described. I couldn't be happier.

The product shipped exactly as described. The book was new and packaged very well. Not a single crumpled page, the spine was stiff as if it had never been opened, and it was almost \$50 cheaper than my university bookstore. As I have not yet finished the course I purchased the textbook for I won't comment on the content of the book, except that as a professional in the work force for structural dynamics test and evaluation I am excited and glad this book includes a chapter on Experimental Modal Analysis that should prove a valuable resource.

Good textbook with a reasonable price. thank you.

The content of the book is excellent, but the print quality is poor. I'm disappointed with the quality of the printing of the book, some pages uncut and I am some pictures and graphics are blurry. The book looks like a photocopy.

Well written textbook. This textbook prepares the foundation and the tools to apply the FE method to vibration application. Good book.

It is best book. It really helpful for structural engineering as well as professionals.

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