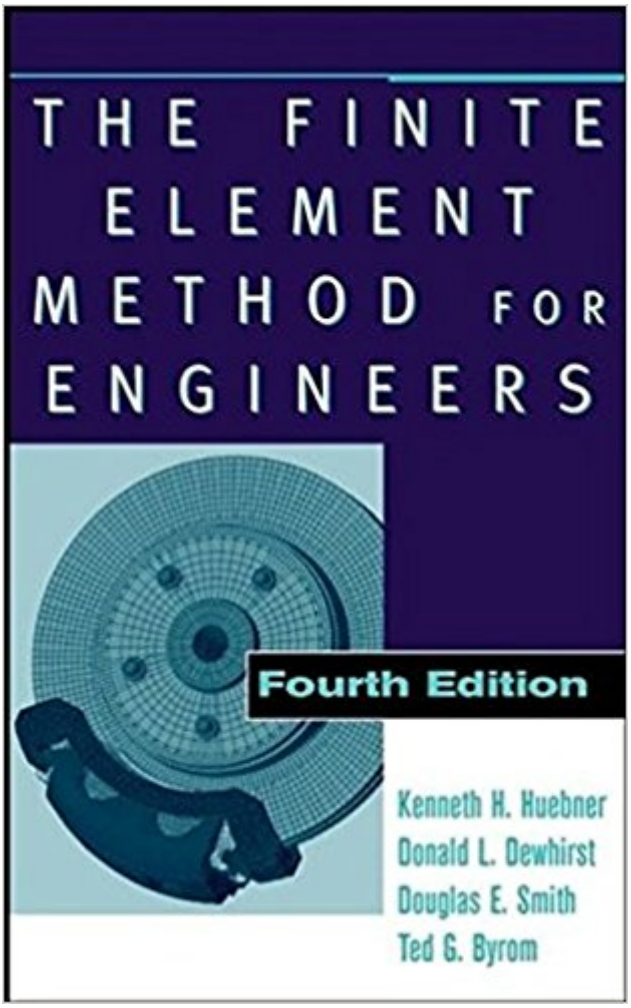
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The Finite Element Method For Engineers



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Synopsis

A useful balance of theory, applications, and real-world examples The Finite Element Method for Engineers, Fourth Edition presents a clear, easy-to-understand explanation of finite element fundamentals and enables readers to use the method in research and in solving practical, real-life problems. It develops the basic finite element method mathematical formulation, beginning with physical considerations, proceeding to the well-established variation approach, and placing a strong emphasis on the versatile method of weighted residuals, which has shown itself to be important in nonstructural applications. The authors demonstrate the tremendous power of the finite element method to solve problems that classical methods cannot handle, including elasticity problems, general field problems, heat transfer problems, and fluid mechanics problems. They supply practical information on boundary conditions and mesh generation, and they offer a fresh perspective on finite element analysis with an overview of the current state of finite element optimal design. Supplemented with numerous real-world problems and examples taken directly from the authors' experience in industry and research, The Finite Element Method for Engineers, Fourth Edition gives readers the real insight needed to apply the method to challenging problems and to reason out solutions that cannot be found in any textbook.

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thanks

I am an amateur modeler/coder in EM and elastic problems. This book has some typo (though easy to realize). Being a novice to the FEM, the treatment in B.C. in the early chapters is somewhat vague (e.g., chapter 4 2D heat problems). True to the title of the book, the notation authors use may not appear friendly to a person with physics background.

This book is a gem. It explains the fundamentals underlying FEM and also has examples of practical applications. The overall presentation is clear, easy to read, and rigorous. It is an excellent introduction to the topic that I find myself referring back to time and again.

Well, I did not have any problem in this transaction. The product came in the predicted time and got here in a good quality. For this reason I rate this item with five stars!Rafael Gontijo.

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