



# Introduction to Finite Element Analysis Using SolidWorks Simulation 2010

By Randy Shih



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The primary goal of *Introduction to Finite Element Analysis Using SolidWorks Simulation* is to introduce the aspects of Finite Element Analysis (FEA) that are important to engineers and designers. Theoretical aspects of Finite Element Analysis are also introduced as they are needed to help better understand the operation.

The primary emphasis of the text is placed on the practical concepts and procedures needed to use SolidWorks Simulation in performing Linear Static Stress Analysis and basic Model Analysis. This text covers SolidWorks Simulation and the lessons proceed in a pedagogical fashion to guide you from constructing basic truss elements to generating three-dimensional solid elements from solid models. This text takes a hands-on, exercise-intensive approach to all the important Finite Element Analysis techniques and concepts.

This textbook contains a series of thirteen tutorial style lessons designed to introduce beginning FEA users to SolidWorks Simulation. The basic premise of this book is that the more designs you create using SolidWorks Simulation, the better you learn the software. With this in mind, each lesson introduces a new set of commands and concepts, building on previous lessons.

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### Bibliography

- Sales Rank: #4179368 in Books
- Brand: Brand: Schroff Development Corporation

- Published on: 2010-01-14
- Original language: English
- Dimensions: 10.75" h x 8.25" w x 1.00" l, 2.35 pounds
- Binding: Paperback
- 450 pages



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