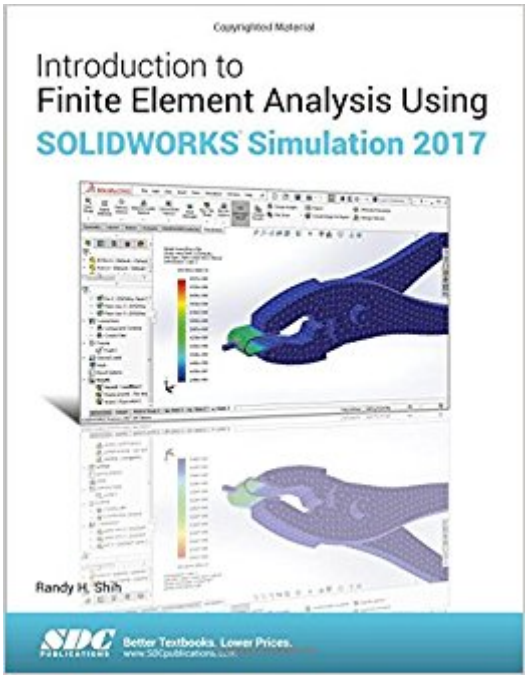
Introduction To Finite Element Analysis Using SOLIDWORKS Simulation 2017



Synopsis

The primary goal of Introduction to Finite Element Analysis Using SOLIDWORKS Simulation 2017 is to introduce the aspects of Finite Element Analysis (FEA) that are important to engineers and designers. Theoretical aspects of FEA 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 Modal 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 FEA techniques and concepts. This textbook contains a series of fourteen 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. Table of Contents 1. The Direct Stiffness Method 2. Truss Elements in Two-Dimensional Spaces 3. 2D Trusses in MS Excel and Truss Solver 4. Truss Elements in SOLIDWORKS Simulation 5. SOLIDWORKS Simulation Two-Dimensional Truss Analysis 6. Three-Dimensional Truss Analysis 7. Basic Beam Analysis 8. Beam Analysis Tools 9. Statically Indeterminate Structures 10. Two-Dimensional Surface Analysis 11. Three-Dimensional Solid Elements 12. 3D Thin Shell Analysis 13. FEA Contact Analysis 14. Dynamic Modal Analysis Appendix Index

Book Information

Perfect Paperback: 500 pages
Publisher: SDC Publications (March 31, 2017)
Language: English
ISBN-10: 163057077X
ISBN-13: 978-1630570774
Product Dimensions: 1.2 x 8.5 x 10.8 inches
Shipping Weight: 2.8 pounds (View shipping rates and policies)
Average Customer Review: Be the first to review this item
Best Sellers Rank: #334,867 in Books (See Top 100 in Books) #45 inÃ Â Books > Computers & Technology > Graphics & Design > CAD > Solidworks #398 inÃ Â Books > Computers & Technology > Graphics & Design > Computer Modelling #571 inÃ Â Books > Arts & Photography

Introduction to Finite Element Analysis Using SOLIDWORKS Simulation 2017 The Finite Element Method: Linear Static and Dynamic Finite Element Analysis (Dover Civil and Mechanical Engineering) Solder Joint Reliability Assessment: Finite Element Simulation Methodology (Advanced Structured Materials) Introduction to Finite Element Analysis and Design Introduction to Nonlinear Finite Element Analysis Introduction to Finite Element Analysis for Engineers Concepts and Applications of Finite Element Analysis, 4th Edition The Finite Element Analysis of Shells - Fundamentals (Computational Fluid and Solid Mechanics) Finite Element Analysis (Engineering) Fundamentals of Finite Element Analysis Fundamental Finite Element Analysis and Applications: with Mathematica and Matlab Computations Introduction to Solid Modeling Using SolidWorks 2017 (Engineering Graphics) An Introduction to the Finite Element Method, 3rd Edition (McGraw Hill Series in Mechanical Engineering) An Introduction to the Finite Element Method (McGraw-Hill Mechanical Engineering) The Handbook of Five Element Practice (Five Element Acupuncture) Engineering & Computer Graphics Workbook Using SOLIDWORKS 2017 Introduction to Solid Modeling Using SolidWorks 2016 Finite Element Simulations with ANSYS Workbench 17 Finite-Element Design of Concrete Structures, 2nd edition Extended Finite Element Method: Theory and Applications (Wiley Series in Computational Mechanics)