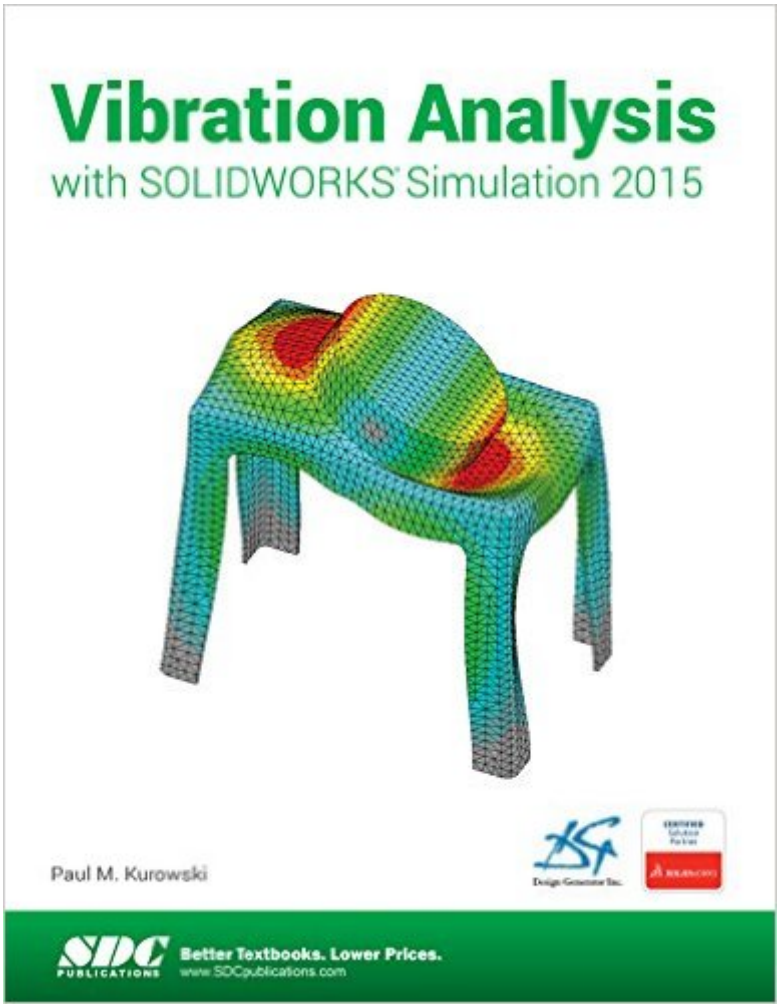
Vibration Analysis With SOLIDWORKS Simulation 2015



Synopsis

Vibration Analysis with SOLIDWORKS Simulation 2015 goes beyond the standard software manual. It concurrently introduces the reader to vibration analysis and its implementation in SOLIDWORKS Simulation using hands-on exercises. A number of projects are presented to illustrate vibration analysis and related topics. Each chapter is designed to build on the skills and understanding gained from previous exercises. Vibration Analysis with SOLIDWORKS Simulation 2015 is designed for users who are already familiar with the basics of Finite Element Analysis (FEA) using SOLIDWORKS Simulation or who have completed the book Engineering Analysis with SOLIDWORKS Simulation 2015. Vibration Analysis with SOLIDWORKS Simulation 2015 builds on these topics in the area of vibration analysis. Some understanding of structural analysis and solid mechanics is recommended. Topics Covered Differences between rigid and elastic bodies Discrete and distributed vibration systems Modal analysis and its applications Modal Superposition Method Modal Time History (Time Response) analysis Harmonic (Frequency Response) analysis Random Vibration analysis Response Spectrum analysis Nonlinear Vibration analysis Modeling techniques in vibration analysis Table of Contents Before you start 1. Introduction to vibration analysis 2. Introduction to modal analysis 3. Modal analysis of distributed systems 4. Modal analysis the effect of pre-stress 5. Modal analysis - properties of lower and higher modes 6. Modal analysis mass participations, properties of modes 7. Modal analysis mode separation 8. Modal analysis axi-symmetric structures 9. Modal analysis locating structurally weak spots 10. Modal analysis a diagnostic tool 11. Harmonic excitation of discrete systems 12. Harmonic base excitation of distributed systems 13. Omega square harmonic force excitation 14. Time response analysis, resonance, beating 15. Vibration absorption 16. Random Vibration 17. Response Spectrum analysis 18. Nonlinear vibration 19. Vibration benchmarks 20. Glossary of terms 21. References 22. List of exercises

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Customer Reviews

Clear explanations. examples work and illustrate a point. This is how I wish all self-teaching manuals were!

Does not show any good case study & real life application.

Vibration Analysis with SOLIDWORKS Simulation 2015 Vibration Analysis with SolidWorks Simulation 2014 Thermal Analysis with SOLIDWORKS Simulation 2016 and Flow Simulation 2016 Engineering Analysis with SOLIDWORKS Simulation 2015 Introduction to Finite Element Analysis Using SOLIDWORKS Simulation 2015 Analysis of Machine Elements Using SOLIDWORKS Simulation 2015 Engineering Analysis with SOLIDWORKS Simulation 2016 Analysis of Machine Elements Using SolidWorks Simulation 2014 Engineering Analysis with SolidWorks Simulation 2013 Introduction to Finite Element Analysis Using SOLIDWORKS Simulation 2016 Analysis of Machine Elements Using SOLIDWORKS Simulation 2016 Introduction to Finite Element Analysis Using SolidWorks Simulation 2014 Engineering Analysis with SolidWorks Simulation 2014 Introduction to Finite Element Analysis Using SolidWorks Simulation 2013 Official Guide to Certified SolidWorks Associate Exams - CSWA, CSDA, CSWSA-FEA (SolidWorks 2015, 2014, 2013, and 2012) CSWE - Certified SolidWorks Expert Preparation Materials SolidWorks 2010 - 2015 Atmospheric and Space Flight Dynamics: Modeling and Simulation with MATLABÃ Â® and SimulinkÃ Â® (Modeling and Simulation in Science, Engineering and Technology) Motion Simulation and Mechanism Design with SolidWorks Motion 2013 Motion Simulation and Mechanism Design with SOLIDWORKS Motion 2016 An Introduction to SOLIDWORKS Flow Simulation 2016