Thermal Analysis with SolidWorks Simulation 2014

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Key Features

- Introduces you to both thermal analysis and its implementation in SolidWorks Simulation 2014
- Covers heat transfer by conduction, convection and radiation, thermally induced stress and thermally induced buckling
- Uses hands on exercises that build on one another throughout the book
- Designed for users already familiar with Finite Element Analysis using SolidWorks Simulation

In Detail

Thermal Analysis with SolidWorks Simulation 2014 goes beyond the standard software manual. It concurrently introduces the reader to thermal analysis and its implementation in SolidWorks Simulation using hands-on exercises. A number of projects are presented to illustrate thermal analysis and related topics. Each chapter is designed to build on the skills and understanding gained from previous exercises.

Thermal Analysis with SolidWorks Simulation 2014 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 2014*. Thermal Analysis with SolidWorks Simulation 2014 builds on these topics in the area of thermal analysis. Some understanding of FEA and SolidWorks Simulation is assumed.

Topics covered

- Analogies between thermal and structural analysis
- Heat transfer by conduction
- Heat transfer by convection
- Heat transfer by radiation
- Thermal loads and boundary conditions
- Thermal resistance
- Thermal stresses
- Thermal buckling
- Modeling techniques in thermal analysis
- Presenting results of thermal analysis

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