About the Book

ANSYS is a large and complex program with many different capabilities. This book is intended to help the new ANSYS user in getting started. The four chapters in this book introduce the reader to effective finite element problem solving by demonstrating the use of the comprehensive ANSYS FEM software in a series of step-by-step tutorials. The contents include ANSYS Basics, ANSYS Operations, Modeling and Meshing and Structural Analysis. This revised edition provides its reader with up-to-date information on ANSYS software.

Salient Features

- The first chapter on ANSYS Basics deals with the finite elements method, mechanical APDL environment, running the ANSYS program, GUI, graphical picking, customizing the GUI, using the ANSYS session and command logs.
- The second chapter on ANSYS Operations deals with getting started, loading, solution, post processing, general postprocessor, time-history postprocessor, selecting the components, creating graphs, annotation, animation, documenting the analysis, typical modeling difficulties, and the mechanical toolbar.
- An exclusive treatise on modeling and meshing is given in the third chapter, Modeling and Meshing, which includes model generation, planning the approach, coordinate systems, working planes, solid modeling, importing solid models, generating the mesh, revising the model, direct generation, and number control and element reordering.
- Problems on linear static structural analysis are presented in Chapter 4, Structural Analysis, in which the problems are categorized based on their dimensionality. The 2D problems are grouped into trusses, beams, planes and frames. The 3D problems are dealt under the headings solids and space.

Table of Contents

ANSYS Basics
ANSYS Operations
Modeling and Meshing
Static Structural Analysis

About the Author

R B Choudary - Dr. R.B. Choudary is Professor of Mechanical Engineering, Sasi Institute of Technology & Engineering, Tadepalligudem. He graduated in Mechanical Engineering from MIT, Manipal in 1986 and obtained M.Tech from REC, Warangal in 1989. He received Ph.D. from Andhra University in 2010. He has more than two decades of teaching experience. He has published 8 papers in different journals and has authored four text books. He is a recipient of MODI Award, National Welding Seminar-1991, Madras and Best Poster Award, International Symposium for Research Scholars-2007, Chennai for his technical papers. He is a member of ISTE, IE (I), IWS and IIFS.