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1.

## Analysis of Plates; 4.1 Introduction

	<ul> <li>4.2 Nonlinear Bending of Rectangular Plates with Free Edges under Transverse and In-plane Loads and Resting on Two-parameter Elastic Foundations4.3 Nonlinear Bending of Rectangular Plates with Free Edges under Transverse and Thermal Loading and Resting on Two- parameter Elastic Foundations; 4.4 Nonlinear Bending of Rectangular Plates with Free Edges Resting on Tensionless Elastic Foundations; 4.5 Nonlinear Bending of Shear Deformable Laminated Plates under Transverse and In-plane Loads; 4.6 Nonlinear Bending of Shear Deformable Laminated Plates under Transverse and Thermal Loading 4.7 Nonlinear Bending of Functionally Graded Fiber Reinforced Composite PlatesAppendix 4.A; Appendix 4.B; Appendix 4.C; Appendix 4.D; Appendix 4.E; Appendix 4.F; References; 5 Postbuckling Analysis</li> </ul>
	of Plates; 5.1 Introduction; 5.2 Postbuckling of Thin Plates Resting on Tensionless Elastic Foundation; 5.3 Postbuckling of Shear Deformable Laminated Plates under Compression and Resting on Tensionless Elastic Foundations; 5.4 Thermal Postbuckling of Shear Deformable Laminated Plates Resting on Tensionless Elastic Foundations 5.5 Thermomechanical Postbuckling of Shear Deformable Laminated Plates Resting on Tensionless Elastic Foundations5.6 Postbuckling of Functionally Graded Fiber Reinforced Composite Plates under Compression; 5.7 Thermal Postbuckling of Functionally Graded Fiber Reinforced Composite Plates; 5.8 Postbuckling of Shear Deformable Hybrid Laminated Plates with PFRC Actuators; References; 6 Nonlinear Vibration Analysis of Cylindrical Shells; 6.1 Introduction; 6.2 Reddy's Higher Order Shear Deformation Shell Theory and Generalized Karman- type Motion Equations
Sommario/riassunto	<ul> <li>6.3 Nonlinear Vibration of Shear Deformable Cross-ply Laminated Cylindrical Shells</li> <li>The capability to predict the nonlinear response of beams, plates and shells when subjected to thermal and mechanical loads is of prime interest to structural analysis. In fact, many structures are subjected to high load levels that may result in nonlinear load-deflection relationships due to large deformations. One of the important problems deserving special attention is the study of their nonlinear response to large deflection, postbuckling and nonlinear vibration. A two-step perturbation method is firstly proposed by Shen and Zhang (1988) for postbuckling analysis of isotropic plat</li> </ul>