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Nota di contenuto	Intro -- MECHANICAL VIBRATIONS: TYPES, TESTING AND ANALYSIS -- MECHANICAL VIBRATIONS: TYPES, TESTING AND ANALYSIS -- CONTENTS -- PREFACE -- Chapter 1 METHODS FOR RESEARCH OF STATES AND CONTROL OF VIBRATION OF NONCONSERVATIVE SYSTEMS -- 1. General Formulation of the Problem and the Method of Studying Auto-Oscillatory Modes of the Systems Being Deformed -- 1.1. The General Equations of Motion of the Viscoelastic Bodies -- 1.2. Formulation of the Problem about the Auto-Oscillations of Viscoelastic Bodies -- 1.3. Deriving the Problem of Body's Agitated Motion to the Operator Equation -- 1.4. Determination of the Critical Parameters of Viscoelastic Systems -- 1.5. Calculation of Self-Oscillatory Regimes by Lyapunov - Schmidt Method -- 1.6. Analysis of the Auto-Oscillations Stability -- 1.7. Approximation of Viscoelastic Systems Distributed by the Parameter Systems with Finite Number of Degrees of Freedom -- 2. Research of Auto-Oscillations by Mechanic Systems -- 2.1. Research of Auto-Oscillations of Mechanical System «Cutter-Support» -- Conclusions -- 2.2. Research of High-Rise Buildings Auto-Oscillations Flowed Round by Air Current -- Conclusions -- 3. Optimal Control of Nonconservative System Vibration -- Conclusions -- 4. Examples of the Mechanical Systems Control -- 4.1. Robot-Manipulator Based on Pantograph Mechanism -- Conclusions -- 4.2. Industrial Robot-Manipulator -- 4.3. Passive-Active Control System for High-Rise Structures -- Conclusions -- References -- Chapter 2 SPECTRUM AND OPERATIONAL MODAL ANALYSIS WITH VECTOR AUTOREGRESSIVE

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Sommario/riassunto

Mechanical vibrations are the continuing motion, repetitive and often periodic, of a solid or liquid body within certain spatial limits. This book examines the study of vibratory phenomena during mechanical grape harvesting, and the utility of mechanical vibration methods for studying physical properties of solid materials.