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Soggetti	Structural dynamics
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Note generali	"A Balkema Book."
Nota di contenuto	Front Cover; Dedication; Contents; Preface; Preface to Second Edition; List of symbols; 1. Introduction; PART 1; 2. Formulation of the equations of motion: Single-degree-of-freedom systems; 3. Formulation of the equations of motion: Multi-degree-of-freedom systems; 4. Principles of analytical mechanics; PART 2; 5. Free vibration response: Single-degree-of-freedom system; 6. Forced harmonic vibrations: Single-degree-of-freedom system; 7. Response to general dynamic loading and transient response; 8. Analysis of single-degree-of-freedom systems: Approximate and numerical methods 9. Analysis of response in the frequency domainPART 3; 10. Free vibration response: Multi-degree-of-freedom system; 11. Numerical solution of the eigenproblem; 12. Forced dynamic response: Multi-degree-of-freedom systems; 13. Analysis of multi-degree-of-freedom systems: Approximate and numerical methods; PART 4; 14. Formulation of the equations of motion: Continuous systems; 15. Continuous systems: Free vibration response; 16. Continuous systems: Forced-vibration response; 17. Wave propagation analysis; PART 5; 18. Finite element method; 19. Component mode synthesis 20. Analysis of nonlinear responseAnswers to selected problems
Sommario/riassunto	This major textbook provides comprehensive coverage of the analytical tools required to determine the dynamic response of structures. The topics covered include: formulation of the equations of motion for single- as well as multi-degree-of-freedom discrete systems using the

principles of both vector mechanics and analytical mechanics; free vibration response; determination of frequencies and mode shapes; forced vibration response to harmonic and general forcing functions; dynamic analysis of continuous systems; and wave propagation analysis.

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