1. Record Nr. UNISA996508572103316

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Titolo	Advanced vibrations : theory and application / / Reza N. Jazar
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , 2022
ISBN	9783031163562 9783031163555
Edizione	[Second edition.]
Descrizione fisica	1 online resource (894 pages)
Disciplina	620.3
Soggetti	Vibration Vibració Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part 1. Vibration Fundamentals -- 1. Vibration Kinematics -- 2. Vibration Dynamics -- Part 2. Time Response -- 3. One Degree of Freedom -- 4. Multi Degrees of Freedom -- 5. First-Order Systems -- Part 3. Frequency Response -- 6. One Degree of Freedom Systems -- 7. Multi Degrees of Freedom Systems -- 8. Two Degrees of Freedom Systems.
Sommario/riassunto	Now in an updated new edition, this textbook explains mechanical vibrations concepts in detail, concentrating on their practical use. This second edition includes the new chapter Multi-Degree-of-Freedom (MDOF) Time Response, as well as new sections covering superposition, music and vibrations, generalized coordinates and degrees-of-freedom, and first-order systems. Related theorems and formal proofs are provided, as are real-life applications. Students, researchers, and practicing engineers alike will appreciate the user-friendly presentation of a wealth of topics, including practical optimization for designing vibration isolators and transient and harmonic excitations. Advanced Vibrations: Theory and Application is an ideal text for students of engineering, designers, and practicing engineers. Contains unique material based on statement-proof-examples; Derives equations of motion using Newton-Euler and Lagrange methods; Presents optimization of vibrating systems not normally covered in standard

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