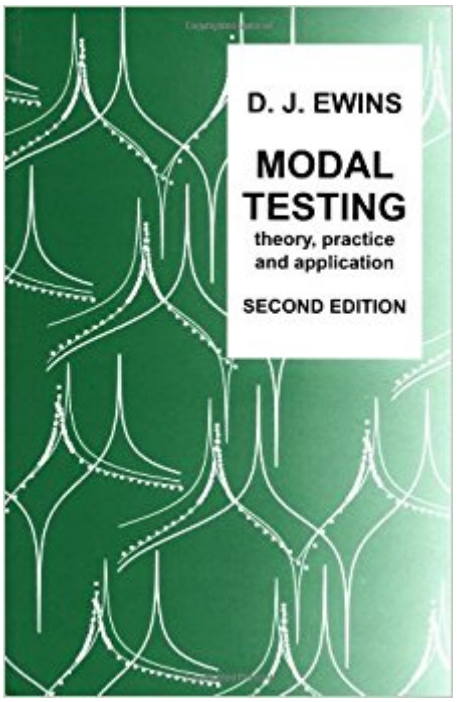
Modal Testing, Theory, Practice, And Application (Mechanical Engineering Research Studies: Engineering Dynamics Series)



Synopsis

All the steps involved in planning, executing, interpreting and applying the results from a modal test are described in straightforward terms. This edition has brought the previous book up to date by including all the new and improved techniques that have emerged during the 15 years since the first edition was written, especially those of signal processing and modal analysis. New topics are introduced, notable amongst them are the application of modal testing to rotating machinery and the use of scanning laser vibrometer.

Book Information

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Customer Reviews

During the 1980s the technology of modal testing became very widely practised in all those engineering disciplines where vibration and other dynamic phenomena affect the behaviour and performance of structures and machines. The techniques involved in carrying out a modal test were developed to a high degree of sophistication while the applications to which the results of these tests could be put became more numerous and more powerful. At the same time as the advantages of modal testing were being enjoyed by an increasing audience, some of the drawbacks of inexpert use of the technology were being learned and recorded. These experiences reinforced the need for a thorough understanding of fundamentals upon which modal testing is based, and of the detailed workings of the various phases and processes which make up a successful test. In this book, all the steps involved in planning, executing, interpreting and applying the results from a modal test are

described in straightforward terms. Efforts are made throughout to ensure that the reader understands the physics of the various stages as well as (if not before) the mathematics. This edition has brought the previous book up to date by including all the new and improved techniques which have emerged during the 15 years since the first edition was written. The more powerful applications are developed in more detail than previously and some new topics have been introduced, notable amongst which are the application of modal testing to rotating machinery and the use of the scanning laser vibrometer.

This book is very decent, it presents the subject matter clearly but is not as mathematical as Heylen’s book. It is a very good sidekick to Heylen’s book.

Mechanical Engineering) The Mechanical Design Process (Mechanical Engineering) Elements of Photogrammetry with Application in GIS, Fourth Edition (Mechanical Engineering) Vector Mechanics for Engineers: Statics and Dynamics (Mechanical Engineering)