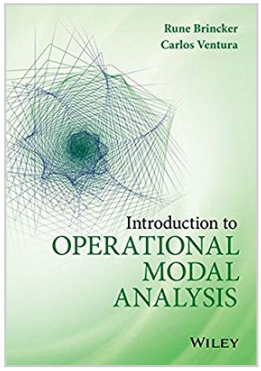

Introduction to Operational Modal Analysis

By Rune Brincker, Carlos Ventura

Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura

Comprehensively covers the basic principles and practice of Operational Modal Analysis (OMA).

- Covers all important aspects that are needed to understand why OMA is a practical tool for modal testing
- Covers advanced topics, including closely spaced modes, mode shape scaling, mode shape expansion and estimation of stress and strain in operational responses
- Discusses practical applications of Operational Modal Analysis
- Includes examples supported by MATLAB® applications
- Accompanied by a website hosting a MATLAB® toolbox for Operational Modal Analysis

Introduction to Operational Modal Analysis

By Rune Brincker, Carlos Ventura

Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura

Comprehensively covers the basic principles and practice of Operational Modal Analysis (OMA).

- Covers all important aspects that are needed to understand why OMA is a practical tool for modal testing
- Covers advanced topics, including closely spaced modes, mode shape scaling, mode shape expansion and estimation of stress and strain in operational responses
- Discusses practical applications of Operational Modal Analysis
- Includes examples supported by MATLAB® applications
- Accompanied by a website hosting a MATLAB® toolbox for Operational Modal Analysis

Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura Bibliography

- Sales Rank: #1384014 in Books
- Published on: 2015-09-08
- Original language: English
- Number of items: 1
- Dimensions: 9.90" h x .92" w x 6.90" l, .0 pounds
- Binding: Hardcover
- 372 pages

Editorial Review

Review
"This is an interesting book for anybody dealing with vibrations, density functions, and with data and signal processing.....I certainly recommend it as a textbook for graduate study in universities." (Zentralblatt MATH 2016)

From the Back Cover

Introduction to Operational Modal Analysis
Rune Brincker – Aarhus University, Denmark
Carlos Ventura - University of British Columbia, Canada

Operational Modal Analysis (OMA) is the technology of estimating modal properties of structures from the operating response. Over the last decade this technology has become more widely used as a supplementary tool to traditional experimental modal analysis where a controlled test is performed and both input and response is known.

Introduction to Operational Modal Analysis comprehensively covers the basic principles and practice of OMA. It presents an overall picture of the OMA technology, and covers all important aspects that are needed to understand why OMA is a practical tool for modal testing.

It is organized into four main sections. Part one covers basic concepts and theories needed for a clear understanding of OMA, including probability modelling, matrix theory and regression, transforms theory and measurement technology. Part two offers a review of concepts of classical structural dynamics covering general damping and discrete time solutions, and part three presents concepts associated with random modelling, including random vibration theory and signal processing. Finally part four reviews identification techniques that are commonly used in practical applications, such as the frequency domain decomposition and the poly reference techniques.

Key features:

- Provides a full theoretical background for OMA
- Covers advanced topics, including closely spaced modes, mode shape scaling, mode shape expansion and estimation of stress and strain in operational responses
- Discusses practical applications of OMA
- Includes examples supported by MATLAB® applications
- Accompanied by a website hosting a MATLAB® toolbox for OMA

Introduction to Operational Modal Analysis is an ideal textbook for graduate-level courses on modal testing of structures, and is a useful reference for researchers and practitioners working in the field of OMA.

About the Author
Rune Brincker is a civil engineer and received his M.Sc and Ph.D. from the Technical University of Denmark in 1977 and 1981, respectively. Since then he has been conducting research on various aspects of

structural mechanics. Rune has been employed as associate and full professor at several Danish universities. Presently he is a Professor of Structural Dynamics at Aarhus University, Denmark. During the last 30 years his research has been focused on operational modal analysis (OMA), and one of his major contributions to this field has been the development of the frequency domain decomposition (FDD) identification technique, which has been used in many practical applications of OMA. Rune Brincker is a co-founder of Structural Vibration Solutions (SVS) founded in 1999; and he is the founding chair of the International Operational Modal Analysis Conference (IOMAC) which started in 2005.

Carlos Ventura is a Civil Engineer with specializations in structural dynamics and earthquake engineering. He has been a faculty member of the Department of Civil Engineering at the University of British Columbia (UBC) in Canada since 1992. He is currently the Director of the Earthquake Engineering Research Facility (EERF) at UBC, and is the author of more than 450 papers and reports on earthquake engineering, structural dynamics and modal testing. He has conducted research about earthquakes and structural dynamics for more than thirty years. In addition to his academic activities, Carlos Ventura is a recognized international consultant on structural vibrations and safety of large Civil Engineering structures. He is a member of the Canadian Academy of Engineering and Fellow of Engineers Canada, also a member of several national and international professional societies, advisory committees and several building and bridge code committees.

Users Review

From reader reviews:

Angel Echols:

Here thing why that Introduction to Operational Modal Analysis are different and reputable to be yours. First of all looking at a book is good nonetheless it depends in the content than it which is the content is as delightful as food or not. Introduction to Operational Modal Analysis giving you information deeper since different ways, you can find any reserve out there but there is no guide that similar with Introduction to Operational Modal Analysis. It gives you thrill studying journey, its open up your own eyes about the thing this happened in the world which is might be can be happened around you. You can actually bring everywhere like in park your car, café, or even in your technique home by train. If you are having difficulties in bringing the imprinted book maybe the form of Introduction to Operational Modal Analysis in e-book can be your substitute.

Donald Mobley:

Do you one among people who can't read satisfying if the sentence chained within the straightway, hold on guys this kind of aren't like that. This Introduction to Operational Modal Analysis book is readable by means of you who hate the straight word style. You will find the details here are arrange for enjoyable studying experience without leaving actually decrease the knowledge that want to deliver to you. The writer involving Introduction to Operational Modal Analysis content conveys thinking easily to understand by a lot of people. The printed and e-book are not different in the written content but it just different such as it. So , do you continue to thinking Introduction to Operational Modal Analysis is not loveable to be your top list reading book?

Lupita Kirch:

Information is provisions for folks to get better life, information currently can get by anyone on everywhere. The information can be a expertise or any news even an issue. What people must be consider any time those information which is within the former life are difficult to be find than now is taking seriously which one would work to believe or which one the resource are convinced. If you get the unstable resource then you have it as your main information we will see huge disadvantage for you. All those possibilities will not happen in you if you take Introduction to Operational Modal Analysis as the daily resource information.

Tanya Wilson:

That guide can make you to feel relax. This particular book Introduction to Operational Modal Analysis was vibrant and of course has pictures on the website. As we know that book Introduction to Operational Modal Analysis has many kinds or variety. Start from kids until teenagers. For example Naruto or Private eye Conan you can read and feel that you are the character on there. Therefore not at all of book usually are make you bored, any it offers you feel happy, fun and chill out. Try to choose the best book for you and try to like reading that.

Read Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura for online ebook

Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura books to read online.

Online Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura ebook PDF download

Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura Doc

Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura Mobipocket

Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura EPub

ANGM21R0SIZ: Introduction to Operational Modal Analysis By Rune Brincker, Carlos Ventura