

Vibro-Acoustics, Volume 3, Second Edition

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Initially, when this book was given to me for review, it seemed, reviewing the third volume without the other two was a mistake. However, once I reviewed it, I found that it can stand alone very well.

There are three volumes in this series. The first two volumes deal with:

- Introduction of basic concepts and mathematical methods of vibro-acoustics
- The basis of vibration, structure-borne sound and acoustics
- Guides the students to the subjects of vibro-acoustics step by step, from simple one-degree-of-freedom systems to more complex ones
- Illustrations of the fundamental theories with verifications by laboratory and field measurements

This review is of the third volume. This volume provides problems for each chapter with solutions and serves as both a reference work for researchers and a study text for graduate students. The contents of this book are as follows:

- Part 1: Problems
- Part 2: Solutions
- Part 3: Summary of Results

There are 16 chapters in Part 1. Each chapter has at least 10 problems on fundamentals of acoustics or vibration. The solutions to the problems are given in Part 2. In Part 3 there is a summary of the main results from Volumes 1 and 2 of the series. This last part discusses structural vibrations and acoustics problems and their solutions which serve as the fundamental foundation for most applications such as dealing with vehicles, ships, interior aircraft noise and compressor structural vibration.

For the undergraduate students, Part 2 of this volume will be helpful for solving the complex vibration and acoustics problems as well as help in developing an understanding of the concepts for the first time. There are 201 problems with solutions. The more experienced reader can use Part 3 as reference guide to solve more complex real life problems.

In summary, the approach serves well for researchers of all levels of vibro-acoustics, since the examples provided cover a full spectrum of applications. This book is effective in weaving those problems into the examples in order to facilitate a successful application of vibro-acoustics.

I recommend this book. Vibro-Acoustics V3 book is an easy reference book to use. This book earns a place in my library between my copies of Blevin's Formulas for Natural Frequency and Mode Shape and Kinsler et al.'s Fundamentals of Acoustics.

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