Industrial Noise Control and Acoustics
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This is an excellent book that can be used not only as a textbook by students but also as a reference text by practicing noise control engineers. The book has ten chapters.

- Chapter 1 introduces the three-component approach to noise control, namely, at the source, along the path and at the receiver.
- The second chapter provides the important fundamentals of acoustics.
- In Chapter 3, the various acoustical measuring instruments are described in addition to describing sound power measurements and various reference environments.
- The topic of transmission of sound is found in Chapter 4. This chapter, in addition to the modeling for transmission loss of a single wall, describes the modeling for transmission loss of composite walls.
- In Chapter 5, the procedures for determination of noise levels from various types of mechanical sources as well as transportation sources, namely, cars and trains, are described.
- Chapter 6 describes the acoustic criteria and guidelines in various spaces, including aircraft noise criteria.
- Chapter 7 describes the room acoustics. Analysis of acoustic barriers located both indoors as well as outdoors is described in this chapter.
- The topic of silencer or muffler design is described in Chapter 8. This chapter includes both reactive as well as dissipative mufflers.
- Chapter 9 describes modeling and analysis of vibration isolation based on the well-known single-degree of freedom system and two-degree of freedom application to dynamic vibration isolation. This chapter also includes a good discussion of vibration isolation materials.
- Chapter 10 is an interesting chapter that includes seven case studies in noise control. The case studies are from industrial noise control applications. The case studies are described in structured fashion, namely, in five steps. First, the noise control case is described. In the second step, the analysis is given. The third step describes the selected noise control approach. The fourth step deals with the cost. Then, the fifth step discusses pitfalls or potential problems to be avoided in the corresponding case.

A very useful feature of the book is that several example problems are worked out in detail in each chapter. Each chapter has an excellent set of assignment problems that include both conceptual and practical types. I would have liked to see something helpful to students: the answers to the assignment problems included. A good list of references is included for each chapter. The figures are very clear. The book has a good set of appendices including absorption coefficients of various materials. In summary, this book is a highly welcome addition to the list of textbooks.

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