1. Record Nr. UNINA9910784638403321

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Titolo	Foundations of engineering acoustics [[electronic resource] /] / Frank Fahy
Pubbl/distr/stampa	San Diego, Calif., : Academic, c2001
ISBN	1-281-03285-9 9786611032852 0-08-050683-6
Descrizione fisica	1 online resource (465 p.)
Disciplina	620.2
Soggetti	Acoustical engineering Acoustic imaging
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. [430]-434) and index.
Nota di contenuto	Front Cover; Foundations of Engineering Acoustics; Copyright Page; Contents; Preface; Acknowledgements; Chapter 1. Sound Engineering; 1.1 The importance of sound; 1.2 Acoustics and the engineer; 1.3 Sound the servant; Chapter 2. The Nature of Sound and Some Sound Wave Phenomena; 2.1 Introduction; 2.2 What is sound?; 2.3 Sound and vibration; 2.4 Sound in solids; 2.5 A qualitative introduction to wave phenomena; 2.6 Some more common examples of the behaviour of sound waves; Chapter 3. Sound in Fluids; 3.1 Introduction; 3.2 The physical characteristics of fluids; 3.3 Molecules and particles 3.4 Fluid pressure3.5 Fluid temperature; 3.6 Pressure, density and temperature in sound waves in a gas; 3.7 Particle motion; 3.8 Sound in liquids; 3.9 Mathematical models of sound waves; Chapter 4. Impedance; 4.1 Introduction; 4.2 Some simple examples of the utility of impedance; 4.3 Mechanical impedance; 4.4 Forms of acoustic impedance; 4.5 An application of radiation impedance of a uniformly pulsating sphere; 4.6 Radiation efficiency; Chapter 5. Sound Energy and Intensity; 5.1 The practical importance of sound energy; 5.2 Sound energy; 5.3 Transport of sound energy: sound intensity 5.4 Sound intensity in plane wave fields5.5 Intensity and mean square pressure; 5.6 Examples of ideal sound intensity fields; 5.7 Sound intensity measurement; 5.8 Determination of source sound power using

sound intensity measurement; 5.9 Other applications of sound intensity measurement; Chapter 6. Sources of Sound; 6.1 Introduction; 6.2 Qualitative categorization of sources; 6.3 The inhomogeneous wave equation; 6.4 Ideal elementary source models; 6.5 Sound radiation from vibrating plane surfaces; 6.6 The vibrating circular piston and the cone loudspeaker
6.7 Directivity and sound power of distributed sources6.8 Zones of a sound field radiated by a spatially extended source; 6.9 Experimental methods for source sound power determination; 6.10 Source characterization; Chapter 7. Sound Absorption and Sound Absorbers; 7.1 Introduction; 7.2 The effects of viscosity, thermal diffusion and relaxation processes on sound in gases; 7.3 Forms of porous sound absorbent material; 7.4 Macroscopic physical properties of porous sound-absorbing materials
7.5 The modified equation for plane wave sound propagation in gases contained within rigid porous materials7.6 Sound absorption by a plane surface of uniform impedance; 7.7 Sound absorption by thin porous sheets; 7.8 Sound absorption by thick sheets of rigid porous material; 7.9 Sound absorption by flexible cellular and fibrous materials; 7.10 The effect of perforated cover sheets on sound absorption by porous materials; 7.11 Non-porous sound absorbers; 7.12 Methods of measurement of boundary impedance and absorption coefficient; Chapter 8. Sound in Waveguides; 8.1 Introduction
8.2 Plane wave pulses in a uniform tube

Sommario/riassunto

Foundations of Engineering Acoustics takes the reader on a journey from a qualitative introduction to the physical nature of sound, explained in terms of common experience, to mathematical models and analytical results which underlie the techniques applied by the engineering industry to improve the acoustic performance of their products. The book is distinguished by extensive descriptions and explanations of audio-frequency acoustic phenomena and their relevance to engineering, supported by a wealth of diagrams, and by a guide for teachers of tried and tested class demonstrations and la

2. Record Nr. UNINA9910144059303321

Titolo	Bijdragen tot de dierkunde
Pubbl/distr/stampa	Amsterdam, : Genootschap Natura Artis Magistra, te Amsterdam, 1848-[1995]
ISSN	2666-0644
Descrizione fisica	1 online resource
Soggetti	Zoology Dierkunde Zoology - Periodicals Periodicals.
Lingua di pubblicazione	Olandese
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Title from cover. Issues for 1980-<1984> have also English titles: Contributions to zoology; Contributions to zoology, Amsterdam. Refereed/Peer-reviewed