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Abstract

The book is a laboratory manual for the field of Acoustics, with each chapter representing a specific branch of Acoustics. It is designed to cover a portion of the teaching material for 2nd year undergraduate laboratory courses in Applied Acoustics or Electroacoustics, typically offered in Acoustic Engineering or Music Technology programs. Each chapter in the book consists of a theoretical and a laboratory section. The theoretical part of each unit provides the necessary background for the student, while the laboratory part helps to deepen their understanding of the concepts discussed in the unit. Each chapter can be taught independently of

the others, provided that the student has the required background knowledge mentioned at the beginning of each chapter. The chapters cover various areas of acoustic measurements, including sound pressure level, reverberation time, sound absorption of materials, sound transmission loss of partitions and sound power level of sources. Additionally, the book covers topics in structural acoustics, musical acoustics, electroacoustics and psychoacoustics. It includes chapters on simple mechanical systems, waves on strings and bars, tuning systems, typical loudspeaker and microphone measurements, as well as psychoacoustic auditory demonstrations.

