Noise and Vibration Control Engineering

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In 1971, Leo L. Beranek edited his now classic volume, Noise and Vibration Control, a text very widely used in noise control. A revised edition of the book was prepared in 1988 and was published by the Institute of Noise Control Engineering in the United States (INCE/USA). In the revision, the chapter on criteria for noise control was completely revised, and the chapter on determination of the sound power level of sound sources was updated.

This book has a name similar to the 1971 classic, but it has been completely rewritten, many new authors have joined the editorial staff, and a wealth of new material has been added. The 21 chapters cover all aspects of noise control engineering, from the basics of sound propagation, to active noise control. The chapter headings give an indication of the scope of this text: Basic Acoustical Quantities: Levels and Decibels, Waves and Impedances, Data Analysis, Determination of Sound Power Levels and Directivity of Noise Sources, Outdoor Sound Propagation, Sound in Small Enclosures, Noise in Rooms, Sound-absorbing Materials and Sound Absorbers, Interaction of Sound Waves with Solid Structures, Passive Silencers and Lined Ducts, Vibration Isolation, Structural Damping, Enclosures and Wrappings, Noise of Gas Flows, Active Noise Control, Damage Risk Criteria for Hearing and Human Body Vibration, Criteria for Noise and Vibration in Communities, Buildings, and Vehicles, Prediction of Machinery Noise, Noise and Vibration Control of the Internal Combustion Reciprocating Engine, Noise and Vibration of Electrical Machinery, and Elements of Gear Noise Prediction.

This text would be very useful for a graduate course in noise control engineering, and will be invaluable for engineers, consultants, researchers, and others working in noise control. It provides a comprehensive overview of the technology of noise and vibration control engineering, and will in the future certainly become the classic English language text in this field.