Record Nr. UNINA9910698640903321 Autore Sinambari Gh. Reza Titolo Design acoustics: primary and secondary noise mitigation / / Gh. Reza Sinambari Pubbl/distr/stampa Wiesbaden, Germany:,: Springer,, [2023] ©2023 **ISBN** 9783658401832 9783658401825 Edizione [1st ed. 2023.] 1 online resource (314 pages) Descrizione fisica Disciplina 620.2 Acoustical engineering Soggetti Mechanical engineering Noise Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Physical principles in the generation, transmission and radiation of machine noise -- Mechanisms of sound generation -- Measurement techniques -- Various noise reduction options for primary and secondary measures -- Field-tested application examples. This technical book helps the design engineer and acoustician to Sommario/riassunto understand the noise development of machines and systems in a comprehensible way, based on an acoustic weak point analysis. It is essential to distinguish between airborne and structure-borne sound radiation. This knowledge enables the designer to develop targeted primary and secondary noise reduction measures. Selected application examples from practice support the user in developing his own ideas for the implementation of product-related noise reduction. The content - Physical principles of the generation, transmission and radiation of machine noise - Mechanisms of noise generation - Measurement techniques - Various noise reduction options for primary and secondary measures - Field-tested application examples The target groups - Engineers, plant designers and acousticians involved in primary, secondary and design noise abatement. - Students of

mechanical engineering, process engineering and technical physics at

technical colleges, universities and universities of applied sciences. The author Professor Dr.-Ing. Gh. Reza Sinambari taught, among other things, the subjects of sound and vibration protection, emission technology acoustics and construction acoustics at the FH Bingen. He was managing director of the company IBS, Ingenieurbüro für Schallund Schwingungstechnik GmbH, Frankenthal, for approx. 27 years, where he currently works as a consultant. This book is a translation of an original German edition. The translation was done with the help of artificial intelligence (machine translation by the service DeepL.com). A subsequent human revision was done primarily in terms of content, so that the book will read stylistically differently from a conventional translation.