1. Record Nr. UNINA9910829864803321 Autore Taherzadeh Shahram Titolo Noise Control [[electronic resource]] Pubbl/distr/stampa Somerset, : Wiley, 2014 **ISBN** 1-118-86386-0 1-118-86384-4 Descrizione fisica 1 online resource (231 p.) 614.78 Disciplina Soggetti Noise control -- Law and legislation Noise control -- Technological innovations Noise spectrum Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. ""Cover""; ""Title Page""; ""Copyright Page""; ""Contents""; ""Section 1: Nota di contenuto Noise basics""; ""1.1 Introduction""; ""1.2 The nature of sound""; ""1.2.1 Frequency and wavelength""; ""1.2.2 Speed""; ""1.3 Power, pressure and intensity""; ""1.4 The decibel and weighting""; ""1.4.1 Frequency response""; ""1.4.2 A-weighting""; ""1.5 Adding sound levels""; ""A word about accuracy""; ""1.6 Summary""; ""Section 2: Analysing sounds""; ""2.1 Introduction""; ""2.2 Analysing steady sounds""; ""2.2.1 Reference frequency and A-weighting""; ""2.2.2 Frequency spectrum""; ""2.3 Point sources and line sources"" ""Point sources"""Line sources""; ""2.4 Directionality""; ""2.5 Sound power level""; ""Calculating the sound power level""; ""2.6 Sound in rooms: reverberation and absorption""; ""2.6.1 The room constant""; ""2.6.2 Estimating the room constant""; ""2.7 Analysing unsteady sounds""; ""2.7.1 Equivalent continuous level""; ""2.7.2 Sound exposure level""; ""2.7.3 Percentile levels""; ""2.8 Summary""; ""Section 3: Outdoor sound""; ""3.1 Introduction""; ""3.2 Geometric divergence (Adiv)""; ""3.3 Atmospheric absorption (Aatm)""; ""3.4 Ground absorption (Aground)""; ""3.5 Barriers (Abar)""

""3.6 Other factors""""3.6.1 Atmospheric refraction (Arefr)""; ""3.6.2 Reflections from vertical surfaces (Arefl)""; ""3.6.3 Meteorological correction (Cmet)""; ""3.6.4 Further factors and limitations""; ""3.7

Transport noise""; ""3.7.1 Road""; ""3.7.2 Rail""; ""3.7.3 Air""; ""3.8 Summary""; ""Section 4: Noise control at source""; ""4.1 Introduction""; ""4.2 Choosing which source to control""; ""4.3 Control of noise by design or choice of process""; ""4.4 Isolating structure-borne vibration""; ""4.5 Enclosures""; ""4.6 Frequency dependence of noise reduction""; ""4.7 Summary""

""Section 5: Control between source and receiver"""5.1 Introduction""; ""5.2 Active noise control""; ""Feedback and feedforward""; ""5.3 Indirect sound paths""; ""5.4 Absorption and absorbing materials""; ""5.4.1 Porous absorbers""; ""5.4.2 Panel absorbers""; ""5.4.3 Calculating the effect of absorbing materials""; ""5.4.4 Further uses of sound absorption""; ""5.5 Barriers""; ""5.5.1 Diffraction""; ""5.5.2 Use of barriers""; ""5.6 Summary""; ""Section 6: Control at the receiver""; ""6.1 Introduction""; ""6.2 Sound insulation of dwellings""; ""6.2.1 Effect of low-insulation areas""

""6.2.2 Improving insulation"""6.3 Ear protection""; ""6.4 Summary""; ""Glossary""; ""References""; ""Acknowledgements""; ""Answer ""; ""Description""