



Cesit Ingegneria S.P.A. www.cesit.net

Safety and Environment

Environmental Acoustics

Noise is defined as any unwanted sound, for example an unpleasant or unexpected sound emitted at high volume and perceived by our hearing system. Noise is now seen as one of the main negative factors impacting on quality of life, to the extent that it has become an issue of public interest, now referred to as "Noise Pollution". The most prevalent sources of noise pollution are industrial processes, traffic and recreational activity.



Combating noise means rediscovering the virtues of silence, and is therefore essential for our psychophysical wellbeing and quality of life, as well as being a good investment.

Our many years' experience combined with our state-of-the-art instrumentation and software enable us to provide a topquality, highly skilled service in the field of environmental acoustics. The aim is not only to protect against noise, but also to distinguish between unwanted noise and useful audible messages, by harnessing the technology and applications that enhance the perception of sound and acoustic comfort in living spaces.



Services

Acoustic Climate

Acoustic compatibility assessments of new facilities such as schools, kindergartens, hospitals, rest homes, parks and residential buildings located in critical areas in terms of noise.

Acoustic Monitoring

Acoustic monitoring plans (noise generated by roads, railways, etc.).

Acoustic Redevelopment and Upgrading

We draw up municipal plans for the acoustic redevelopment of plant, machinery, infrastructures and other noise sources. The aim of the redevelopment plan is to bring noise emissions within the limits established in acoustic classifications and achieve the acoustic quality levels laid down in the applicable legislation by means of initiatives designed to mitigate or rectify situations of non-compliance with municipal acoustic classification requirements.

Technical Consulting and Expert Witness Testimony in civil and criminal proceedings

Our experience in the field of acoustics qualifies us to operate as court-appointed and party-appointed technical consultants in legal proceedings.

Acoustic Impact Assessments

Acoustic impact assessments of infrastructures such as plant, machinery, airports, roads, railways and various other businesses (industry, mining, craft production, recreational activities etc.). Special attention is paid to acoustic impact assessments for public show and leisure venues, which often fail to take account of the extent to which good design can prevent problems of interaction with surrounding environments.

Predictive Assessment

Using 3D sound modelling and simulation systems, accurate predictive assessments can be made in order to ensure compliance with noise emission limits for new works or refurbishment projects, and to examine acoustic zoning options for municipal territory and the planning of acoustic upgrading initiatives at the preliminary stage.

Predictive assessments are made for the construction or modification of:

- Industrial facilities
- Roads
- Discothegues, clubs and
- public premises
- Sports and leisure facilities
- Temporary construction sites
- Temporary activities
- Production activities

Acoustic Zoning

Municipal acoustic zoning plans, i.e. acoustic classification of municipal territory. This document involves dividing the urban territory into homogeneous acoustic areas. For municipal administrative authorities, it constitutes a regulatory document, because it governs the permissible use and development of the various areas of the territory in terms of noise limits. The aim is to prevent noise pollution and provide a tool for planning and prevention, and urban, commercial, artisanal and industrial redevelopment.

Acoustic Instrumentation

Class 1 sound metering systems for outdoor applications with wireless connections for long-term monitoring. Possibility of real-time transmission of data to a web site so as to provide Customers with ongoing monitoring of noise levels in the area under control

Class 1 hand-held sound metering systems for indoor and outdoor use

Mobile laboratory equipped with Class 1 sound metering and spectrum analysis systems for short-, medium- and long-term monitoring